minimum point of entry,[440] (3) at the point where the wiring loop connects to the common feeder line,[441] or (4) at the wall plate in each apartment.[442]

158. Some commenters argue that the Commission should prohibit future installations of loop-through wiring in order to promote competition,[443] while others claim that loop-through wiring configurations are often necessary in order to provide any video service. or that the Commission does not have the authority to prohibit its use.[444] GTE asserts that the only solution is to deregulate rates for home wiring and give subscribers immediate pre-termination rights. GTE contends that after deregulation the building owner would have control over all existing loop-through inside wiring.[445]

2. Discussion

159. As with other cable inside wiring configurations in MDUs, a wiring loop may include both wiring inside the individual dwelling unit and wiring in common areas which extends outside the individual dwelling unit to the riser or feeder cable. We believe that, for purposes of our cable inside wiring rules, all loop-through wiring should not be treated the same. We therefore conclude that, when the property owner or the entity that owns or controls the common areas elects to switch to a new service provider, our cable home wiring rules will apply to that portion of the loop-through wiring that is inside the individual dwelling unit (up to the demarcation point(s) discussed below). For example, when an MDU owner wishes to terminate service for a building with loop-through wiring and invokes our building-by-building procedures for disposition of the home run wiring, those procedures will govern the disposition of the wiring that is dedicated to each loop other than the cable home wiring within each unit. Consistent with our building-by-building procedures, the MDU owner will be permitted to purchase the

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[440] GTE Docket 92-260 Comments at 5-6; see *also* OpTel Docket 92-260 Comments at 2, 4-6 (should consider each MDU building with loop-through wiring as a single premises and permit owner access to all wiring in the building).

[441] Liberty Docket 92-260 Comments at l-2

[442] New York City Docket 92-260 Comments at 6. *But* see OpTel Docket 92-260 Comments at 5 (no benefit to setting demarcation point at wall plate because each subscriber cannot separately choose service).

[443] Ameritech Docket 92-260 Comments at 7-8; GTE Docket 92-260 Comments at 6; NYNEX Docket 92-260 Comments at 4; PacTel Docket 92-260 Comments at 2-3; USTA Docket 92-260 Comments at 2; Ameritech Docket 92-260 Reply Comments at 7; PacTel Docket 92-260 Reply Comments at 1-2; SNET Docket 92-260 Reply Comments at 12.

[444] Building Owners, et al., Docket 92-260 Comments at 5 and n.3; CATA Docket 92-260 Comments at 4; NCTA Docket 92-260 Comments at 5; New York City Docket 92-260 Comments at 6-7 (it prohibited loop-through installations in 1990, but argues that local franchising authority is in the best position to evaluate the community's needs and whether loop-through wiring is appropriate there, so Commission should not); Time Warner Docket 92-260 Comments at 7-8; Time Warner Docket 92-260 Reply Comments at S-10. *But* see Bell Atlantic Docket 92-260 Comments at l-2 (the Commission should exercise it ancillary Title I jurisdiction to prohibit future loop-through installations); Ameritech Docket 92-260 Reply Comments at 8 (Commission should use its "ancillary jurisdiction" to prohibit future loop-through wiring installations).

[445] GTE Docket 92-260 Comments at 4

loop-through home wiring pursuant to our cable home wiring rules. In addition, where the MDU owner terminates service for the entire loop but does not or cannot invoke our procedures for the disposition of home run wiring, the MDU owner will nevertheless have certain rights to the home wiring within the individual dwelling units.

160. Where a building is comprised of rental units, the building owner will have the right to elect to switch service providers and the right to purchase the loop-through home wiring. In buildings in which persons have a direct or indirect ownership interest in individual units (as with condominiums and cooperatives), the election of whether to switch service providers will be determined under the rules of the association or entity that owns and controls the building's common areas, in a manner similar to other decisions made by the entity with respect to the common areas. If the MDU owner elects to switch to a new service provider but does not wish to purchase the loop-through home wiring, the new service provider may elect to purchase the wiring.

161. Allowing the MDU owner to purchase loop-through home wiring under these circumstances will allow that party to control the wiring. We agree with the commenters that assert that, at least in competitive markets, the MDU owner has a significant incentive to represent the subscribers' interests.[446] In addition, the management structures of condominium or cooperative buildings are designed to reflect their residents' interests. Allowing the MDU owner to control loop-through home wiring gives the subscriber an opportunity for increased choice and enhanced service, and furthers Section 624(i)'s statutory purpose of facilitating the transfer to an alternate service provider with minimal disruption to the subscriber.[447] We previously excluded loop-through wiring from our cable home wiring rules because we did not believe it was appropriate to give the initial individual subscriber in the loop control over the cable service of all remaining subscribers on the loop.[448] Under the procedures we adopt today, that situation cannot occur.

162. We note that New York City appears to misunderstand our proposal when it complains that our proposal will turn the wiring over to an alternative service provider "replacing one monopoly for another" and requires the cable operator to rewire if it is subsequently asked to provide service.[449] We clarify that, as we have stated, our rules will provide the MDU owner, not the alternative provider, with

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[446] *See,* e.g., Ameritech Docket 92-260 Comments at 6 and Docket 92-260 Reply Comments at 3, 6-7; NYNEX Docket 92-260 Comments at 3 (competition would be better served with building owner rather than cable operator control); OpTel Docket 92-260 Comments at 2, 6-8 (owner has long term interest in building and the services available in it; residential real estate market is fiercely competitive; building owner can act as subscriber's authorized agent); RCN Docket 92-260 Comments at 4-5 (no need for concern over building owner control).

[447] *See* 1992 House Report; S. Rep. No. 92 102d Cong., 1st Sess., at 23 (1991) ("1992 Senate Report"); *Cable Home Wiring Further Notice, 11* FCC Rcd at *4565-4566; Cable Wiring Order, 8* FCC Rcd at 1435; *Notice of Proposed Rulemaking,* MM Docket No. 92-260, 7 FCC Rcd 7349; see *also* Bell Atlantic Docket 92-260 Comments at 1 (Commission should pursue a single objective: to permit individual tenants or, if that is technologically impossible, the building owner, to obtain cable service from competing service providers in the least disruptive fashion and with the minimum of service delay); see *also* Ameritech Docket 92-260 Reply Comments at 2-3.

[448] *See Cable Wiring Order, 8* FCC Rcd at 1437.

[449] *See* New York City Docket 92-260 Comments at 4-5; see *also* CATA Docket 92-260 Comments at 2.

the first opportunity to purchase the loop-through wiring.[450] Once the MDU owner owns and controls the wiring, the cable operator will be on equal footing under our rules with other video service providers with regard to subsequently providing service to the tenants.[451] Only if the MDU owner declines to purchase the wiring will the alternative provider have the opportunity to purchase the loop-through wiring.

163. Contrary to the arguments of some cable interests,"' *the* Commission has the authority to apply our home wiring and home run wiring rules to loop-through wiring configurations. We have the express authority under Section 624(i) to apply our home wiring rules to the loop-through wiring that is within the individual dwelling units because it is within the subscriber's premises. In addition, we believe, for reasons described above, that Sections 4(i) and 303(r) provide us with the authority to apply our rules regarding the disposition of home run wiring to loop-through wiring in the common areas of MDUs. We disagree with Time Warner's assertion that including loop-through wiring in our rules would constitute a taking under the Fifth Amendment."" Including loop-through wiring within our rules as explained herein will not result in cable operators' entire distribution systems "essentially be[ing] confiscated."[454]

164. We will set the demarcation points, i.e., the points between which the MDU owner may purchase the loop-through home wiring under our cable home wiring rules, at or about 12 inches outside the point at which the loop enters or exits the first and last individual dwelling units on the loop, or as close as practicable where 12 inches outside is physically inaccessible. In some cases, the loop may begin and end outside of the same unit, and thus the demarcation points shall be 12 inches outside the point at which the loop enters and exits that one unit, or as close as practicable where 12 inches outside is physically inaccessible. We believe that this is consistent with Section 624(i), i.e., the loop-through home wiring is within the customer's premises, and with the cable demarcation point for non-loop-through configurations. We note that one of our prior concerns was that establishing a separate demarcation point for each subscriber on the loop was not feasible.[455] Under the rules set forth herein, however, one entity will be purchasing the entire home wiring loop, making it unnecessary to set a demarcation point for each subscriber's unit.

165. We will apply the same rules with respect to compensation and technical standards that we apply to non-loop-through wiring systems as well. In other words, the loop-through wiring on the subscriber's side of the demarcation point may be purchased by the MDU owner at the replacement cost as defined in Section 76.802(a).[456] The loop-through wiring outside the demarcation points up to the point

[450] *See* Bartholdi Docket 92-260 Reply Comments at 2.

[451] *See id.* at 3.

[452] *See*, e.g., CATA Docket 92-260 Comments at 2-3; Time Warner Docket 92-260 Reply Comments at 3.

[453] *See* Time Warner Docket 92-260 Reply Comments at 6-7

[454] *See id* at 6. Also see Section III.A.2.d. above for a discussion of the takings issue with respect to home run wiring.

[455] *See Cable Home Wiring Further Notice*, 11 FCC Rcd at 4580.

[456] 47 C.F.R. § 76302(a).

at which the loop connects with the riser or feeder cable may be addressed pursuant to the procedures set forth above with regard to the disposition of home run wiring.

166. Despite the competitive drawbacks of loop-through wiring, we do not believe it necessary for the Commission to prohibit future installations of loop-through wiring configurations. We believe that such a prohibition would unduly restrict the configuration options available to building owners and service providers.[457] We have found no evidence in the record that cable operators have installed loop-through wiring in order to evade our rules since they were implemented in 1993.[458] Also, the application of our home wiring rules to loop-through systems where the MDU owner seeks to switch service providers should reduce any incentive cable operators may have to install loop-through configurations for anti-competitive reasons.

F. Video Service Provider Access To Private Property

1. Federal Mandatory Access Requirements

a. Background

167. In the *Inside Wiring Notice,* we sought comment on the ability of various service providers to obtain access to private property.[459] Specifically, we sought comment on the legal and practical impediments faced by telecommunications service providers in gaining access to subscribers, and on the current status of the law regarding access to private property by cable operators and telephone companies.[460] We also sought comment on whether allowing a company that holds an easement for one service to rely on that same easement to provide another service would constitute a "taking" under the Fifth Amendment.[461] The *Inside Wiring Notice* further sought comment on whether the Commission can and should attempt to create access parity among service providers and, if so, what the rules regarding such parity should be, and whether there were any statutory or constitutional impediments to this goal.[462]

168. Telephone companies and alternative video providers generally assert that there is a need for rules that will provide comparable property access rights for the delivery of all services.[463] NYNEX

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[457] *See* Liberty Docket 92-260 Comments at 3 (loop-through wiring is well-suited to bulk service arrangements, which can result in consumer benefits).

[458] *See* GTE Docket 92-260 Comments at 6.

[459] *Inside Wiring Notice, 11* FCC Rcd at para. 58.

[460] *Id.* at paras. 61 and 62.

[461] *Id.* at para. 63.

[462] *Id.* at para. 64.

[463] *See,* e.g., GTE Comments at 2, 21 (uniform, non-discriminatory access rules should be adopted for delivery of all voice, data, and video services; creating access parity is vital); MFS Reply Comments at 14 (Commission should follow Guam's lead, by requiring installation of conduit in MDUs which is large enough to accommodate multiple cables and by requiring service providers to leave a pull wire in the conduit for other service providers).

explains that, while state laws give telephone companies the authority to use public rights-of-way, the laws do not always provide access to private property. NYNEX claims that, in states that do provide telephone companies with the power of eminent domain over private property, the use of such eminent domain in MDUs or commercial buildings is "impractical due to statutory time periods. costs, and survey requirements."""" NYNEX states that its telephone companies have obtained access to MDUs not through easements or eminent domain proceedings, but with the tacit or express consent of the landlords.[465]

169. PacTel argues that the notion of allowing competition would be purely illusory if alternative video service providers did not have access to private easements and rights-of-way.[466] AT&T states that the Commission must assure that competitive service providers have the same access rights to the subscriber's or building owner's property as incumbent service providers currently enjoy.'"' AT&T argues that, pursuant to Sections 25 l (b)(4) and 25 l (c)(3) of the 1996 Act, the Commission should require that all new service providers have access to portions of incumbents' network access facilities, including rights-of-way, easements and other pathways to customer wiring.[468] MFS argues that government intervention is appropriate and necessary to proscribe discriminatory actions by owners and managers that stymie competition.[469] NYNEX also supports the adoption of rules that would promote open access for

[464]NYNEX Comments at 12-l 3.

[465]*Id.*

[466]PacTel Reply Comments at 2. PacTel also argues that the Commission has already taken a strong stand in favor of allowing video service providers access to public and private property (citing our *Report* ***and Order and Further Notice of Proposed Rule Making*** in IB Docket No. 95-59 (supporting preemption of local regulation of satellite antennas)); see also NTCA Reply Comments at 3 (goal of Commission's rules should be to ensure accessibility for all providers; efficient delivery of service and opportunity for choice can best be accommodated by reasonable, flexible rules that permit subscribers to choose among providers in a competitive environment); DIRECTV Comments at 13-14 (supporting open access and the right of service providers to install or upgrade common wiring in an MDU, unless a property owner can demonstrate a reduction in property value by the exercise of such access rights). But see Ameritech Reply Comments at 11 (there is no private property cable access issue to be solved; cable operators' 1994 national penetration rate of 65.2% and installation of facilities which pass 96% of all U.S. television households demonstrates that such access is readily available).

[467]AT&T Reply Comments at 10; see ***also*** NYNEX Comments at 17. NYNEX also supports rules that would require a LEC to afford access to competing local exchange carriers where the LEC's contractual or easement agreements give the LEC the right to do so. However, NYNEX points out that contractual rights obtained by its telephone companies to provide service to buildings are limited at best. NYNEX Comments at 15.

[468]AT&T Reply Comments at 10-l1; see ***also*** U S West Comments at 7 (facilities use agreements for unbundled LEC network elements are contemplated by the 1996 Act; to the extent existing inside building wire is owned by a LEC and is part of a LEC's network, it is a network element subject to Sections 251(c)(2) and (3); however, deregulated wire is not a potential network element).

[469]MFS Reply Comments at 10-13 (property owners often block building entry and attempt to charge new entrants exorbitant, discriminatory access fees; building owners and managers are often not motivated by tenants demands, but rather by profit/revenue opportunities); see also MFS Reply Comments at 6-9 (Commission should adopt a general non-discrimination access rule with three requirements: equal entry charges to all wireline service providers; non-discriminatory interconnection and unbundled access to the incumbent LEC's network to allow connection with the customer's demarcation point; and establishment of dispute resolution responsibility with local

alternative telephone and video service providers on a going forward basis.[470] NYNEX notes, however, that legislation may be the only way to ensure comparable access for competing telephone and video service providers, and further cautions that courts may deem laws or regulations that force landlords to allow providers access to their buildings to be a taking, requiring payment of just compensation.[471]

170. Two wireless competitive LECs, Teligent and WinStar, urge the Commission to adopt a rule ensuring reasonable and nondiscriminatory access to inside wiring, WinStar proposes that the Commission issue a rule requiring owners of multiple tenant units to grant telecommunications service providers physical access to inside wiring on nondiscriminatory terms, so long as the owners are allowed to demand just compensation from the providers after access has occurred.[472] Teligent argues that the Commission should mandate building access through an interpretation of Section 224 that encompasses private rights-of-way to building rooftops,[473] and should ensure that competitive carriers have access to the riser cables of office buildings as part of the incumbent LEC's unbundling requirement.[474]

171. Generally, proponents of a federal mandatory access law argue that such a law would promote competition through ensuring competitors uniform access to MDUs. These commenters claim that property owners often block building entry for service providers, or are willing to grant access only on unreasonable or discriminatory terms.[475] They further claim that building owners and managers are motivated to exploit business opportunities, rather than by a desire to provide tenants with access to diverse and advanced telecommunications services.

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franchising authorities and state commissions)

[470] NYNEX Comments at 17.

[471] *Id.* at 16-l 7. *But* see AT&T Reply Comments at 10-1 I and n. 28 (asserting that Section 25 1 of the 1996 Act provides the Commission clear statutory authority to require incumbent LECs to offer new carriers the ability to share their facilities on the network side of the demarcation point, which should alleviate building owners' concerns that placing wires and other facilities on their private property is a taking); *cf.* MFS Reply Comments at 6, 18 and 21 (where an owner allows incumbents exclusive access but denies new entrants the same access, the owner effectively creates an exclusive easement, and enforcement of such easements should be preempted under Section 253(d) of the 1996 Act; a rule prohibiting discriminatory access would not constitute a "taking" because it would only require building owners to offer new entrants the same access provided to incumbents under the same terms, and would require compensation at the market rate paid by incumbents).

[472] WinStar Comments at 16-21.

[473] Teligent Comments at 16-2 1.

[474] *Id.* at 22-24.

[475] *See*, e.g., MFS Reply Comments at IO-13 (property owners often block building entry and attempt to charge new entrants exorbitant, discriminatory access fees; building owners and managers are often not motivated by tenants demands, but rather by profit/revenue opportunities); Teligent Comments at 9-16 (some building owners use their control over bottleneck facilities to refuse building access entirely, while others seek to extract unreasonable rates and conditions for access); WinStar Comments at 7 (many landlords are exercising their monopoly power when leasing rooftop space, inside wiring and riser access)

172. Two commenters suggest that existing telephone easements should be construed to allow incumbent service providers access to provide additional services. Bell Atlantic seeks "clarification" that a provider that has obtained access to provide any service (e.g., telephone service or cable television service) may use that access to provide additional services."[476] NYNEX contends that. if it delivered video programming using a common carrier service, it would "arguably" have the same access rights as a telephone company providing any other common carrier service.[477]

173. Cable operators also note the disparity in property access rights which exists among service providers. NCTA claims that "[b]y virtue of their status as monopoly providers, telephone companies benefit . . . from access statutes and easements that are not available to cable and other providers."[478] Thus, NCTA argues, the Commission must promote policies that broaden access for all competitors.[479] Charter/Comcast notes that public utilities are often granted private easements because property owners would otherwise be unable to obtain the utilities' monopoly services;[480] however, property owners have fewer incentives to grant easements to franchised cable operators due to existing choices among video providers.[481] Charter/Comcast urges the Commission to rectify this incongruity by construing Section 62 1 (a)(2) of the Communications Act as prohibiting a property owner from denying a franchised cable operator access to an easement on the property when the owner has already granted or is obligated to grant an easement to other utilities, whether public or private.[482] Other cable operators urge the Commission to adopt an access rule that would allow residents to choose among providers instead of having to accept the property owner's choice of provider."[483]

174. Marcus Cable, et al., claim that, under Section 706 of the 1996 Act, the Commission must adopt an access rule. Section 706 directs the Commission to encourage deployment of advanced

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[476] Bell Atlantic Reply Comments at 10.

[477] NYNEX Comments at 14; see *also* Liberty Comments at 22 (statutes that give common carriers MDU access for telephony could be interpreted to guarantee such carriers access for provision of video service).

[478] NCTA Reply Comments at 14.

[479] *Id.*

[480] Charter/Comcast Comments at 6; see *also* NYNEX Comments at 13.

[481] Charter/Comcast Comments at 6.

[482] *Id.* at 10-12. But see Building Owners, et al., Comments at I 1 (legislative history of Section 621(a)(2) of the 1984 Cable Act demonstrates that Congress did not intend to give the Commission power to mandate access. In 1984, the House deleted from H.R. 4103 the section that would have directed the Commission to promulgate regulations guaranteeing cable access to MDUs, commercial buildings and trailer parks); Building Owners, et al., Reply Comments at 8 (the 1996 Act provides no mandatory access provisions; if Congress had wanted to give cable operators access rights to private property, it could have done so in this most recent comprehensive revision of federal telecommunications law).

[483] *See, e.g.*, Guam Cable Comments at 6 (recommending access rules which mirror Illinois statutes); TKR Cable Reply Comments at 5-6 (noting that the arguments raised against multiple provider access to MDUs are similar to those raised against allowing multiple cable franchises).

telecommunications capability to all Americans by promoting competition and removing barriers to infrastructure investment, and, according to the Marcus Cable, et al., the record in this proceeding demonstrates that MDU property owners stand as a barrier to continued development of broadband services.[484]

175. Several commenters believe that there may be limits to the Commission's authority to enact a federal rule mandating access to MDUs in order to resolve variations in access rights.[485] Time Warner argues that the Commission must ensure that a landlord's ability to restrict access is not enhanced as a result of any rules adopted, but cautions that the adoption of a federal uniform access policy may be premature and the subject is better left to the states.[486] ICTA argues that the Commission does not possess the power of eminent domain and that a mandatory cable access law will lead to a lessening of competition rather than an expansion of competition."' ICTA also notes that Congress has repeatedly considered and rejected a federal mandatory cable access law.[488]

176. Building Owners, et al., argue that requiring a landlord to permit a third party to occupy the premises and attach wires to the building is legally indistinguishable from the intrusion which the Supreme Court invalidated in ***Loretto*** *v. Teleprompter Manhattan CATV Corp.*[489] Building Owners, et al.,

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'*'Marcus Cable, et al., Reply Comments at I I-12.

[485] *See,* e.g., CATA Comments at 9-10; CATA Reply Comments at 7 (Commission has no present authority to enact competitive access regulations, but should urge Congress to adopt a uniform access law); Cox Reply Comments at 15, n. 29 (a rule granting access to MDUs would reflect sound public policy, and the Commission should mandate access to extent it has authority to do so; if the Commission has no such authority, it should request that Congress grant it authority); Further Reply of Community Associations institute at 3-6.

[486] Time Warner Reply Comments at 48, 58. State regulatory authorities agree that such matters are best left to the states. See New Jersey BPU Comments at 15 (access rules should be based on and consistent with models adopted by the states); New York City Comments at 2 (local property use matters are best resolved at the local level, and should continue to be treated in a manner that gives deference to traditional local health, safety and welfare concerns).

[487] ICTA Comments at 38, 50; see ***also*** OpTel Reply Comments at 2 (a Commission-imposed federal mandatory access requirement would harm consumers and competition); D. Chudnow Comments at 2 (mandating competitive access without compensation would unconstitutionally impair existing contractual rights under state and federal law, since many owners have long-term exclusive contracts with service providers, and such an access requirement would create blanket unrestricted easements over owners' property, which constitute takings under the Fifth Amendment). But see TKR Reply Comments at 10 (there is a fundamental difference between whether owners can be forced to provide access and whether they can be forced to do so without compensation; the Commission "surely has the power, short of condemnation, to require, as the New York State Cable Commission did in *Loretto*, mandatory access with compensation").

[488] ICTA Comments at 38-39, 41 and 42; see also Building Owners, et al., Comments at 11.

[489] Building Owners, et al., Comments at 6-7, (citing *Loretto* ***v. Teleprompter Manhattan CATV Corp., 458 U.S.*** 419 (1982)); see ***also*** ICTA Comments at 36 (citing *Loretto*, ***458*** U.S. at ***426*** and ***Cable Holdings, Inc. v.*** McNeil *Real Estate* ***Fund VI, Ltd.,*** 953 F.2d 600, 605 (I 1 th Cir. 1992)); Further Reply of Community Associations Institute at 4.

claim the real estate market is thriving, competitive, and responsive to the needs of tenants, and that government regulation would interfere with the "on-the-spot management" needed to effectively address safety and security concerns, assure compliance with building codes, coordinate the needs of different tenants and service providers, and generally oversee efficient day-to-day operations? TKR, however, asserts that if the market were already providing tenants with the services they need, alternative providers would not be complaining about their inability to gain access. According to TKR, the Commission should remove MDU owner gatekeeper control by requiring that each subscriber be entitled to the services of his/her choice.[491]

177. Building Owners, et al., also point to property owners' responsibility for tenant security as a concern."' But others state that concerns regarding safety. security and aesthetics can be easily addressed.[493]

b. Discussion

178. While we agree that nondiscriminatory access for video and telephony service providers enhances competition, we will not adopt a federal mandatory access requirement at this time. We note that telecommunications carriers' access to telephone companies' facilities and rights-of-way under the 1996 Act are currently under reconsideration in *First Report and Order* in CC Docket No. 96-98 and **CC** Docket *No.* 95- *185 ("Interconnection Order")."* We do not believe that the record in this proceeding

[490] Building Owners, et al., Comments at 18; see *also* ICTA Comments at **43** (owners would be foolish not to ensure that the particular broadband services available were of the highest quality at a competitive price); Building Owners, et al., Comments at 32, **34** (only the landlord can coordinate the conflicting needs of multiple tenants and multiple service providers, and therefore the best approach is to allow owners to retain maximum flexibility over the control of inside wiring of all kinds); Building Owners, et al., Reply Comments at 3, 5 (discrimination "either does not exist or is simply a rational response to market conditions").

[491] TKR Reply Comments at 11

[492] Building Owners, et al., Comments at 31 (owners may be found legally liable for failing to protect tenants; telecommunications service providers have no such obligations, and may violate security policies or even commit illegal or dangerous acts themselves).

[493] Marcus, et al., Reply Comments at 7 (video service providers' personnel could be required to check in with landlords before doing work; wiring safety concerns are governed by industry standards; providers could be required to compensate landlords for damage caused in installation and removal of wiring); DIRECTV Reply Comments at 4-5 (owners should be able to schedule building access, as with all other service providers, while ensuring that building codes are not violated, and all installers should be held to same set of standards and not allowed to perform work unless they can do so safely; tenants should be able to decide for themselves which services have merit based on their own individual needs).

[494] *First Report and Order,* CC Docket No. 96-98 (Implementation of Local Competition Provisions in the Telecommunications Act of 1996) and CC Docket No. 95-185 (Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers), 11 FCC Rcd 15499 (1996).

provides a sufficient basis for us to address these issues. We will defer decisions on these issues to that proceeding.[495]

179. In addition, as stated above, Charter/Comcast urges the Commission to construe Section 621(a)(2) to prohibit a property owner from denying a franchised cable operator access to an easement on the property when the owner has already granted or is obligated to grant an easement to other utilities, whether public or private."" Section 621(a)(2) provides that "[a]ny franchise shall be construed to authorize the construction of a cable system over public rights-of-way, and through easements, which is within the area to be served by the cable system and which have been dedicated for compatible uses . . . "[497] Numerous court decisions have interpreted the statutory language and legislative history of Section 621(a)(2), several finding that this section does not provide cable operators access to purely private easements granted to utilities.[498] We decline to address those rulings here, but will continue to examine these issues as we seek to ensure parity of access among all telecommunications and video services providers. Similarly, we decline at this time to adopt a mandatory access rule under Section 706 of the *1996* Act,[499] but may revisit this issue as we consider issues of service provider access in the broader competitive context.

180. We believe that whether an incumbent provider may use its existing easements or rights-of-way to provide new or additional services[500] generally depends on state law interpretations of the terms of the easements or rights-of-way. While we decline at this time to decide as a general matter whether

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[495] Similarly, as noted above. we do not decide herein whether under Section 207 of the 1996 Act viewers living in rental properties, and those who need access to common property. have the right to receive certain video programming services over the property owner's objections. This issue will be addressed in IB Docket No. 95-59 (Preemption of Local Zoning Regulation of Satellite Earth Stations) and CS Docket No. 96-83 (Implementation of Section 207 of the Telecommunications Act, Restrictions on Over-the-Air Devices: Television Broadcast Service and Multichannel Multipoint Distribution Service).

[496] Charter/Comcast Comments at 10-11. *But* see Building Owners, et al., Comments at 11 (legislative history of Section 621(a)(2) of the 1984 Cable Act demonstrates that Congress did not intend to give the Commission power to mandate access. In 1984, the House deleted from H.R. 4103 the section that would have directed the Commission to promulgate regulations guaranteeing cable access to MDUs, commercial buildings and trailer parks); Building Owners, et al., Reply Comments at 8 (the 1996 Act provides no mandatory access provisions; if Congress had wanted to give cable operators access rights to private property, it could have done so in this most recent comprehensive revision of federal telecommunications law).

[497] 47 U.S.C. § 541(a)(2).

[498] *See, e.g., Cable Holdings, Inc. v. McNeil Real Estate Fund VI, Ltd.,* 953 F.2d 600, 606 (1 lth Cir. 1992); *TCI, Inc. v. Schriock Holding Co., 11* F.3d *812* (8th Cir. 1993); *Media General Cable, inc. v. Sequoyah Holding Condo. Council,* 991 F.2d *1169* (4th Cir. 1993); *Cable Investors, Inc. v. Woolley, 867* F. 2d 15 1 (3d Cir. 1989); *Cable Assocs. v. Town & Country Mgmt. Corp., 709* F, Supp. *582* (E.D. Pa. 1989). *But see, e.g., Centel Cable Television Co. of Florida v. Admiral's Cove Associates, Ltd.,* 835 F. 2d 1359 (11th Cir. 1988).

[499] *See* Marcus Cable, et al., Reply Comments at 11-12.

[500] *See,* e.g., Bell Atlantic Reply Comments at 10; NYNEX Comments at 14; Charter/Comcast Comments at 10-11; NCTA Reply Comments at 14.

such easements and rights-of-way permit the provision of additional services, we believe that we do have the authority in certain instances to review restrictions imposed upon such use."'

2. State Cable Mandatory Access Requirements

a. Background

181. In the *Inside Wiring Notice, we* sought comment on the types of access provided by state mandatory access statutes and who qualifies for such access."' We sought comment on what type of access is provided to cable operators under statutes granting mandatory access and what type(s) of access to private property states grant to telephone companies."'

182. According to the record in this proceeding, some form of mandatory access law may exist in approximately 18 U.S. jurisdictions, including Connecticut, Delaware. the District of Columbia, Florida, Illinois, Iowa, Kansas, Maine, Massachusetts, Minnesota, Nevada, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, West Virginia and Wisconsin.[504] The record also indicates that there may be local ordinances that provide similar access rights.[505] Commenters claim that these statutes were generally enacted due to local franchising authorities' efforts to ensure that MDUs would have cable programming service and to prevent owners from denying access based on aesthetic or other considerations.[506] Commenters further contend that state mandatory access statutes were intended to serve as consumer protection laws at a time before franchised cable operators faced competition from alternative video service providers."'

183. According to NYNEX, while state laws give telephone companies the authority to use public rights-of-way, they do not always provide access to private property. In states that do provide the telephone company with the power of eminent domain over private property, NYNEX claims that the use of such eminent domain in MDUs or commercial buildings is not practical due to statutory time periods, costs, and survey requirements. NYNEX asserts that its telephone companies generally obtain access to

[501] *See, e.g., 47 U.S.C. § 253; In the Matter of TCI Cablevision of Oakland County, inc.,* CSR Docket *No.* 4790, FCC 97-331 (released Sept. 19, 1997).

[502] *Inside Wiring Notice,* 11 FCC Rcd at para. *62.*

[503] *Id.*

[504] ICTA Comments at 48, n.24; WCA Comments at 6-7 and n.15; Ex Parte Letter from Daniel L. Brenner, counsel for NCTA, to William F. Caton, Acting Secretary, Federal Communications Commission (February 18, *1997).*

[505] ICTA Comments at 48.

[506] WCA Comments at 7; MDC Comments at 4; Continental Reply Comments at 11.

[507] *Id.*

equipment, which include cable home wiring,[618] are "reasonable" and based on "actual cost."[619] We believe that. if subscribers are allowed to install and to maintain their own cable home wiring, or to pay an outside vendor to do it for them, the wiring installation and maintenance markets will be more competitive and operate to ensure reasonable rates, the goal of Section 623(b).[620]

219. More generally, we believe our decision furthers the goal of competition which pervades Title VI. Section 601 states that one purpose of Title VI is to "promote competition in cable communications and minimize unnecessary regulation that would impose an undue economic burden on cable systems.'" Subscriber control over the installation and maintenance of home wiring will result in greater competition in cable wiring services, while deemphasizing the necessity for rate regulation for those services. In addition, Congress has expressed a preference for enhancing a subscriber's ability to connect equipment to the cable operator's home wiring.[622] More broadly, Congress explicitly prohibited exclusive franchises,"' which indicates that Congress sought to encourage widespread competition in the cable communications area. We also note that Congress has shown its intent to introduce broader competition in the communications industry overall with the passage of the 1996 Act.[624] Thus, we conclude that these provisions support the Commission's authority to take actions necessary to prompt evolution of a competitive environment.

220. Contrary to the assertions of cable operators, subscriber pre-termination access is not inconsistent with the Communications Act. Specifically, Section 624(i) does not limit our authority to take this action.[625] The plain language of that provision refers only to the disposition of cable wiring "after a subscriber to a cable system terminates service ."[626] The rule we adopt here will have an impact on the rights and obligations of service providers and subscribers prior to termination of service. As discussed above with regard to our new rules regarding the disposition of home run wiring,"' we find

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[618] *See Report and Order and Further Notice of Proposed Rulemaking*, MM Docket No. 92-266 (Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992, Rate Regulation) *("Rate Order"), 8* FCC Rcd 5631, 5806 & n.666 (1993).

[619] Communications Act, § 623(b), 47 U.S.C. § 543(b)

[620] *See* AT&T Comments at 8; New York DPS Reply Comments at 2-4.

[621] 47 U.S.C. § 521(6).

[622] *See* Communications Act, § 629, 47 U.S.C. § 549 (Competitive Availability of Navigation Devices): Communications Act, § 624A, 47 U.S.C. § 544a (Consumer Electronics Equipment Compatibility).

[623] 47 U.S.C. § 541(a).

[624] *See* 1996 Conference Report at 1.

[625] *See* Section III.A.2.c.

[626] Communications Act § 624(i), 47 U.S.C. § 544(i).

[627] *See* Section III.A.2.c.

no "inescapable conflict" between the establishment of customer pre-termination access rights to cable home wiring and the plain language of Section 624(i).[628]

221. This rule does not impermissibly treat cable operators as common carriers. Functionally. our rule permitting subscribers to connect their own home wiring to the cable operator's wiring is no different than a subscriber connecting his or her own television or v ideo cassette recorder to the cable operator's wiring. indeed, as noted above, Congress has established policies designed to enhance subscribers' ability to connect their own equipment to the cable operator's wiring.""

222. We also do not believe that the rule we are adopting will pose an undue risk of signal leakage or harm to the cable system. Many subscribers already own and control their home wiring -- e.g., where the cable operator charges for it upon installation or where state law deems home wiring to be a "fixture." Indeed, as many cable interests have pointed out in this proceeding, the marketplace has established the F-type connector as the de facto standard for connecting coaxial cable to CPE.[630] Such connectors are readily available and, if properly used. provide adequate signal leakage protection.'" Also, as stated above, we will permit cable operators to establish reasonable technical specifications for subscriber-installed home wiring (including passive splitters, connectors and other equipment used in the installation of home wiring), not to exceed the specifications of their own wiring and equipment. Furthermore, we will protect the cable system from electronic and physical harm by allowing the cable operator to impose additional technical specifications where such harm exists.

223. We note that. although questioning the Commission's authority to require operators to allow subscribers to own and access their home wiring prior to termination of service, NCTA and Time Warner do not appear to believe that allowing subscriber access to home wiring poses substantial risks. Both parties suggest that the Commission might provide incentives, such as deregulation of wiring and equipment rates, for cable operators to voluntarily cede control of home wiring to consumers upon installation.[632] Notably, Continental and Time Warner agreed, under the terms of their respective Social Contracts,"[633] to provide their subscribers with pre-termination access to their home wiring. Not only do we believe that it is unlikely that Continental and Time Warner would have agreed to do so if the signal leakage problems posed by such access were insurmountable, but we also have seen no evidence of increased hazardous signal leakage for systems owned by Continental in the over one year, or Time Warner in the nearly two years, since this provision of the respective Social Contracts went into effect.

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[628] *See* III.A.2.c. (citing *Aeron Marine Shipping Co., 695* F.2d at 576).

[629] *See* Communications Act, § 629, 47 U.S.C. § 549 (Competitive Availability of Navigation Devices); Communications Act, § 624A, 47 U.S.C. § 544a (Consumer Electronics Equipment Compatibility).

[630] *See*, e.g., Time Warner Comments at 31-36; NCTA Comments at 35-36. The status of the F-type connector as the cable industry standard is discussed at length in the Section on Means of Connection, below.

[631] In addition, cable operators can provide guidance to subscribers who install their own wiring.

[632] NCTA Reply Comments at 9; Time Warner Comments at 29-31.

[633] *Social Contract for Continental Cablevision, I* 1 FCC Rcd *299 (1995) Continental Cablevision, inc., Amended Social Contract*, 11 FCC Rcd *11118* (1996); *Social Contract for Time Warner,* 11 FCC Rcd 2788 (1995).

224. We will not modify our current requirement that cable operators monitor signal leakage and eliminate harmful interference while they are providing service. regardless of who owns the home wiring.[634] We also will continue to require cable operators to discontinue service to a subscriber where signal leakage occurs, until the problem is corrected.'" As stated in the *Cable Wiring Order,* a cable operator will not be held responsible for facilities over which it no longer provides service.""" We believe that the continuation of these requirements will appropriately balance the interests of subscribers with the interests of those engaged in licensed over-the-air communications and cable operators in maintaining the security and integrity of the cable systems.

225. Allowing subscribers to install their own cable home wiring prior to termination of service may raise concerns regarding physical and electronic harm to the cable system and degradation of signal quality, including interference with other customers' service. To the extent a customer's installations or rearrangements of wiring degrade the signal quality of or interfere with other customers' signals, or cause electronic or physical harm to the cable system, we will allow cable operators to discontinue service to that subscriber, as operators may do where a customer's wiring causes signal leakage, until the degradation or interference is resolved. We note, however, that cable operators are not responsible for degradation of signal quality to the subscriber where a subscriber has added outlets or owns and maintains his or her own wiring. While we recognize that theft of cable service is a legitimate concern,[637] we do not agree that our rules granting customers pre-termination access to cable home wiring will promote theft of service. Some cable companies already provide customer pre-termination access to wiring, and there is no evidence in the record that these policies have resulted in increased theft of service. In addition, cable operators may take security measures, such as scrambling of their signals. to deter theft of service.

226. We do not believe that the above rule will result in an impermissible per se or regulatory "taking" under the Fifth Amendment."" First. our rule does not authorize a permanent physical occupation of the cable operator's property, and thus does not constitute a per se taking under *Loretto*.[639] To the contrary, the only physical "burden" that can be placed on the cable operator's wiring under our rules is its connection to wiring installed by the subscriber or the subscriber's redirecting of the wiring to another location. The rule specifically provides that subscribers may not physically cut, substantially alter or otherwise destroy operator-owned wiring. So long as the cable operator continues to own the wiring, the cable operator retains the right, prior to termination of service, to use and dispose of its property in any

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[634] *See* WCA Comments at 23 (citing WCA December 1, 1992 Comments filed in MM Docket No. 92-260 at 8-10). Cable operators are required to demonstrate compliance with a cumulative signal leakage index at least once a year. See 47 C.F.R. § 76.6 11. In addition, cable operators must monitor a substantial portion of their cable plant every three months, and must promptly take appropriate remedial action to eliminate any detected harmful interference. 47 C.F.R. §§ 76.6 13-76.614.

[635] *See 47* C.F.R. § 76.617

[636] *Cable Wiring Order, 8* FCC Rcd at 1439.

[637] *See* 1992 House Report at 118; *Cable Wiring Order, 8* FCC Rcd at 1436, para. 7.

[638] U.S. Const. amend. V. The Fifth Amendment provides that private property shall not be "taken for public use, without just compensation." *Id.*

[639] *See Loretto*, *458* U.S. at 426.

manner it sees fit.[640] No government edict requires cable operators to place their wires in subscribers' homes, and no government edict requires cable operators to keep them there. So long as cable operators choose to place and to maintain their wiring on subscribers' privare property, they have no reasonable expectation that the wiring will never be used or moved by the subscribers themselves.

227. Nor do we believe that our rules effect a "regulator> taking" under the factors set forth in *Penn Central Transportation Co. v. New York City.* which esam ine: (I) the character of the governmental action; (2) the economic impact of the regulation; and (3) the regulation's interference with investment-backed expectations.'" First, the *Penn Central* court held that a taking "may more readily be found when the interference with property can be characterized as a physical invasion by government .. than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good."[642] Applying this principle, the Claims *Court* in *American Continental Corporation v. United States* found that the characterization of the governmental action as involving "an effort to promote the public interest militates against finding a fifth amendment taking."[643] Here, our action seeks to promote competition and consumer choice in the marketplace for cable home wiring. We expect our action to produce the same benefits we have seen in the myriad of other areas of communications where we have introduced competition, including lower prices, greater technological innovation and additional consumer choice. We believe this factor weighs heavily against any finding of a regulatory taking.

228. Second, we do not believe that the economic impact of the rules we adopt argues in favor of a taking. Cable operators' home wiring will remain intact. and they may continue to use that property for the very purpose for which it was installed -- to provide video programming and other services to subscribers. While cable operators may lose some revenues relating to the installation of home wiring and additional outlets, we believe that monopoly profits lost when a market is opened to competition are not an infringement on legitimate property rights that requires compensation:

> Suffice it to say that government regulation -- by definition -- involves the adjustment of rights for the public good. Often this adjustment curtails some potential for the use or economic exploitation of private property. To require compensation in all such circumstances would effectively compel the government to regulate by purchase.[644]

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[640] *See Andrus* v. *Allard*, *444* U.S. 5 1, 65-66 (I 979) ("The regulations challenged here do not compel the surrender of the artifacts, and there is no physical invasion upon them In this case, it is crucial that appellees retain the rights to possess and transport their property, and to donate or devise the protected birds.").

[641] 438 U.S. 104, 124 (1978).

[642] *Id.* at 124 (citation omitted).

[643] *American Continental, 22 Cl.* Ct. 692, 696 (I 991).

[644] *Andrus v. Allard*, *444* U.S. at 65; *see also Pennsylvania Coal Co. v. Mahon, 260* U.S. 393, 413 (1922) ("Government could hardly go on if to some extent values incident to property could not be diminished without paying for every such change in the general law.").

In addition, as the Supreme Court held, a "prediction of profitability is essentially a matter of reasoned speculation that courts are not especially competent to perform. Further. perhaps because of its very uncertainty, the interest in anticipated gains has traditionally been viewed as less compelling than other property-related interests."[645]

229. Third, we believe that the rule we are adopting will not interfere with cable operators' legitimate "investment-backed expectations." As noted above, subscribers can already connect some of their own equipment to the cable operator's network in a manner similar to that provided for home wiring in our new rule. More importantly, we do not believe that cable operators could have a "reasonable expectancy" that the cable home wiring market would continue to be a monopoly service never subject to competition. Given that the cable industry and cable wiring are subject to significant regulation under Title VI of the Communications Act, the expectations of entities in the cable industry must be based on those regulations, the premise of the law underlying them. and that regulations are amended to respond to changing circumstances.[646] This environment is consistent with the Commission's authority to evaluate changing circumstances and amend its policies as it determines necessary.[647] We therefore believe that all three *Penn Central* factors weigh in favor of a finding that our pre-termination access rule does not effect a regulatory taking.

230. We will neither establish a presumption of ownership of cable home wiring nor deregulate home wiring rates at this time. These proposals encompass a range of issues beyond the scope of this proceeding. We believe that our rules allowing consumers to install, redirect and reroute their cable home wiring adequately promote the goals of expanded competition and consumer choice without the need to address ownership issues. We also note our obligation under Section 623 to regulate the rates of equipment used by subscribers to receive the basic service tier.[648]

H. Signal Leakage

1. Background

231. In the *Inside Wiring Notice,* we sought comment on whether and how to extend our signal leakage rules that currently apply only to traditional cable systems to others that provide service over

[645] *Andrus v. Allard*, *444* U.S. at 65-66 ("loss of future profits -- unaccompanied by any physical property restriction -- provides a slender reed upon which to rest a takings claim"); *see also Everard's Breweries v. Day*, *265* U.S. 545, 563 (1924) (rejecting takings argument where regulation prohibited the sale of alcoholic beverages despite the fact that individuals were left with previously acquired stocks).

[646] *See American Continental*, *22 Cl.* Ct. at 697 ("[when investment is made in a highly regulated industry, to be reasonable, expectations must be based not only on then-existing federal regulations but also on the recognition that there may well be related changes in the regulations in the future.").

[647] *See FCC v. RCA Communications, Inc., 346* U.S. 86, 94-95, 98 (1953).

[648] *See 47* U.S.C. § 543

broadband facilities.“” We noted that while signal leakage from the transmission of broadband video programming may interfere with licensed over-the-air communications, signal leakage from the transmission of narrowband telephony does not pose a similar threat to such communications.[650] We recognize, however, that telephone companies and other telecommunications service providers now deliver broadband service over the same aeronautical and public safety frequencies, and at similar levels of power, as do cable systems. We are concerned that the risks posed by the delivery of cable signals also esist with respect to these providers of broadband service. We solicited comment on whether. if our cable signal leakage rules were to apply to all broadband service prov iders, our current signal leakage requirements are adequate or whether they should be modified in light of the additional types of broadband service providers that would be covered.‘”

232. The comments filed in this proceeding overwhelmingly support extending the Commission’s existing cable television signal leakage rules to all providers of broadband service.“” These commenters assert that broadband service providers. in addition to franchised cable systems, may transmit signals over aeronautical and public safety frequencies at power levels sufficient to cause potential interference.[653] The commenters generally agree that where potential signal leakage from a broadband service provider poses a risk of interfering with air traffic and emergency communications. the Commission’s cable signal leakage rules should apply.“””

233. A few commenters believe that extension of the Commission’s cable signal leakage standards to all providers of broadband service is unnecessary. Ameritech argues, for instance, that the signal leakage rules should not apply to broadband digital transmissions that may not interfere with

[649] *Inside Wiring Notice*, 11 FCC Rcd at 2759-60. Cable systems often deliver cable signals over the same frequencies as many over-the-air licensees, including air traffic control and police and fire safety communications. In order to reduce the potential for electromagnetic interference with over-the-air services caused by cable signal leakage, the Commission established specific restrictions on cable operators’ use of radio frequencies. See 47 C.F.R. §§76.605(a)(12) (formerly §76.605(a)(13)) and 76.61 O-76.6 17).

[650] *Inside Wiring Notice*, 1I FCC Rcd at 2757-59. The transmission of narrowband telephony is not a source of signal leakage that could cause harmful interference with critical health and safety frequencies because it requires only a fraction of the power used to transmit video programming. In addition, telephone signals have been carried over a much narrower, as well as different, portion of the frequency spectrum than licensed over-the-air communications.

[651] *Id.* at 2759-60.

[652] *See* Time Warner Comments at 36-42; Time Warner Reply Comments at 59-62; Adelphia Comments at 5; AT&T Comments at 18; AT&T Reply Comments at 14, n.36; OpTel Comments at 16; ICTA Comments at 58; GTE Comments at 14; PacTel Comments at IO; Cox Comments at 23-27; Cox Reply Comments 17-l 8; New Jersey BPU at 10; MCI Reply Comments at 3-4; Liberty Cable Comments at 24; Bartholdi Reply Comments at 20; Media Access/CFA Comments at 16-17; New Jersey Ratepayer Advocate Comments at 3-4.

[653] *See,* e.g., Time Warner Comments at 39-42; AT&T Comments at 18.

[654] *See,* e.g., PacTel Comments at IO; Time Warner Comments at 39-42.

aeronautical and public safety bands.[655] Tandy and Circuit City both insist that concerns about signal leakage from consumer-installed broadband wiring can be addressed through mandatory labeling requirements and installation instructions for broadband wiring and connectors.[656] TIA asserts that leakage hazards can be diminished through minimum cable performance specifications and detailed customer installation guides."[657] General Instrument and Media Access/CFA propose the adoption of cable shielding standards to reduce the risk of signal leakage."[658]

234. In addition, while ICTA and Optel generally support application of the cable signal leakage standards to all providers of broadband service, they request the establishment of a transition period to permit private cable operators to bring existing systems into compliance with signal leakage rules.[659] Specifically, ICTA proposes a live-year transition period."[660] ICTA and Optel argue that a transition period is necessary in light of the costs associated with compliance and in order to afford private cable operators a reasonable time within which to upgrade their systems.[661] They further urge the Commission to tailor signal leakage testing criteria to private cable operators serving MDUs.[662] In particular, these commenters ask the Commission to consider each MDU connected via microwave link a separate cable system so that leakage from individual MDUs may be assessed individually rather than cumulatively.[663] Time Warner opposes ICTA's and Optel's requests. Time Warner argues that the five-year period suggested by ICTA is too long and proposes a one-year transition period for non-cable broadband service providers to comply with the Commission's signal leakage rules.[664] In response to ICTA's and Optel's request that the Commission modify its signal leakage testing criteria, Time Warner

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[655] Ameritech Comments at 15 (supporting, however, extension of the Commission's cable signal leakage rules to providers of broadband analog service); Ameritech Reply Comments at 8-9; see *also* Bell Atlantic Reply Comments at 17-18 (asserting that digital transmission over fiber optics poses little risk of interference with public safety or aeronautical traffic).

[656] Tandy Comments at 5: Tandy Reply Comments at 6; Circuit City Comments at 14 (also suggesting that the Commission set minimum standards regarding the quality of wiring sold to the public).

[657] TIA Comments at 4

[658] General Instrument Comments at 5-7; General Instrument Reply Comments at 2; Media Access/CFA Comments at 16- 17.

[659] ICTA Comments at 57-59; OpTel Comments at 16-18.

[660] ICTA Comments at 59.

[661] ICTA Comments at 57-59; OpTel Comments at 16-18

[662] ICTA Comments at 57-59; OpTel Comments at 16-18.

[663] ICTA Comments at 57-59; OpTel Comments at 16-18.

[664] Time Warner Reply Comments at 59-62. Time Warner notes that when the Commission revised its cable signal leakage requirements in 1984, it established a five-year transition period to allow for compliance. Time Warner argues, however, that at that time cable operators faced problems such as equipment replacement and plant reconditioning of a magnitude that would not be faced by private cable systems seeking to comply with signal leakage rules today. ***Id.***

suggests that the Commission establish certain distance criteria that define when areas served by the same microwave system may be considered separate for testing purposes.[665]

235. Finally, a number of parties suggest that, in the event that our signal leakage rules are extended to all broadband service providers, new techniques for identifying signal leakage may have to be devised.[666] These commenters assert that pinpointing the source of a particular leak may be difficult in cases where several providers serve the same or overlapping geographic areas and propose methods for identifying the source of the signal leakage.[667] Time Warner, Bartholdi, and Cox all suggest that the Commission implement signal leakage tracking procedures while Adelphia proposes that service providers themselves establish methods for pinpointing the source of leakage.[668]

2. Discussion

236. The purpose of the Commission's signal leakage rules is to protect licensed over-the-air communications, including aeronautical, police, and fire safety communications, from interference caused by signal leakage.[669] Until now, the Commission rules governing signal leakage have been applied only to cable systems, which often deliver signals over the same frequency bands as many over-the-air licensees.[670]

237. An increasing number of MVPDs are competing with cable operators in the provision of video programming and other services. Because these MVPDs often transmit signals over the same public safety and navigation frequencies as cable operators, they may be a source of potentially harmful signal leakage.[671] The public safety concerns that underlie application of our signal leakage regulations to cable operators are equally present with respect to other MVPDs such as SMATV, MMDS and open video system operators and others. We agree with the majority of commenters in this proceeding and will modify our rules to extend existing cable signal leakage requirements to non-cable MVPDs. In light of the potential harm to public safety that may be caused by broadband signal leakage interfering with

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[665] *Id.* at 62

[666] Time Warner Comments at 42; Adelphia Comments at 5; Bartholdi Reply Comments at 20-21; Cox Reply Comments at 18.

[667] Time Warner Comments at 42; Adelphia Comments at 5; Bartholdi Reply Comments at 20-21; Cox Reply Comments at 18.

[668] Time Warner Comments at 42; Adelphia Comments at 5; Bartholdi Reply Comments at 20-21; Cox Reply Comments at 18.

[669] The Commission's signal leakage rules were initially adopted in 1977 and revised in 1984. *Report and Order,* Docket No. 21006, 65 F.C.C.2d 813 (1977); *Second Report and Order,* Docket No. 21006, 99 F.C.C.2d 512 (1984).

[670] Specifically, Section 76.605(a)(12) establishes the maximum individual signal leakage limits for all cable operators using frequencies outside the broadcast television bands, while Sections 76.610-76.617 impose more stringent operating and monitoring requirements for cable systems operating in the bands that are used by aircraft for communications and navigation. See 47 C.F.R. §§76.605(a)(12) and 76.610-76.617.

[671] Currently, cable operators transmit video signals in the radiofrequency band from 54 MHz up to 1 GHz.

aeronautical, navigational and communications radio systems, we will not rely on labelling requirements, installation instructions or cable performance specifications.

238. With regard to Ameritech's argument that our signal leakage rules should not apply to digital transmission, we note that systems transmitting digitized signals may operate in the restricted aeronautical and public safety bands. Our signal leakage rules provide that systems operating in the restricted bands are only subject to the testing and monitoring requirements when they operate above a threshold power level."[672] Systems using digital transmissions normally operate below this power threshold.[673] Systems using digital technology that operate below our threshold power level therefore would not generally be subject to the most rigorous sections of our signal leakage rules.[674] MVPDs using digital transmission will, however, be subject to Section 76.605(a)(12) which sets forth the maximum signal leakage limits for systems, regardless of the frequency band or power level in use.[675]

239. We will require that all MVPDs comply with Section 74.613 of our rules upon the effective date of this ***Order.*** Section 76.6 13 protects licensed over-the-air communications from harmful interference and requires prompt action to eliminate such interference.[676] We believe that immediate compliance with Section 76.613 is necessary because. unlike our other signal leakage rules that are designed to minimize the risk of interference by requiring that leakage be detected and repaired, Section 76.613 provides that once harmful interference actually occurs it must be promptly eliminated. We recognize, however, that immediate compliance with many of our other signal leakage requirements may present hardships to existing MVPDs not previously subject to such rules. We will allow for a five-year transition period from the effective date of these rules to afford non-cable MVPDs time to comply with our signal leakage rules other than Section 76.6 13.[677] We note that such a transition period is consistent with the time period allotted to cable operators in 1984 to comply with the more stringent signal leakage requirements imposed by the Commission.[678] We disagree with Time Warner that non-cable MVPDs do not need five years to comply with signal leakage rules because they do not face many of the same obstacles cable operators confronted in the past in complying with such rules. We believe that a five-year transition period will provide a reasonable time period for existing non-cable MVPDs to undertake such functions as replacing equipment, upgrading existing wiring, and training personnel to conduct signal

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[672] *See 47* C.F.R. § 76.610.

[673] For digital transmissions that may operate above the power threshold, the Commission shall continue to apply the same requirements as those for analog transmissions due to the potential harm to public safety.

[674] *See id.*

[675] *See 47* C.F.R. §76.605(a)(12).

[676] 47 C.F.R. § 76.613.

[677] In addition, we are issuing *a Second Further Notice* herein to determine, among other things, whether and how to apply the reporting requirements of Section 76.6 15(b)(7) of our signal leakage rules to certain broadband service providers other than cable operators. 47 C.F.R. §76.615(b)(7).

[678] In 1984, the Commission imposed more stringent signal leakage requirements and granted cable operators a five year time frame within which to comply. *See Second Report and Order,* Docket No. 21006, 99 F.C.C.2d 512 (1984).

leakage measurements.“[679]” The five-year transition period will apply only to the systems of those non-cable MVPDs that have been substantially built as of January 1,1998. We will define “substantially built” as having 75% of the distribution plant completed.

240. Our rules require that each cable system perform an independent signal leakage test annually.“[680]” Based on the current record, we will not amend our rules to treat MDUs or different geographic areas connected by microwave link as separate systems for testing purposes.“[681]” We believe that for the past six years our testing criteria have provided effective standards for monitoring and rectifying signal leakage in 3 1,000 cable communities nationwide. Cognizant of the changing technologies that may be used by MVPDs, we will continue to review specific systems' operations and designs that may warrant adjustments to our signal leakage testing criteria.

241. We will not establish any new signal leakage testing procedures such as tracking systems to identify the source of signal leakage. We believe that MVPDs are capable of devising and selecting the most appropriate methods for detecting signal leakage on their own systems. We encourage MVPDs to work together to develop methods that will permit them to accurately identify the source of any signal I eakage.

242. While our signal leakage rules generally require cable operators to perform signal leakage monitoring and testing, Section 76.615 requires cable operators to file specific information with the Commission.[682] In particular, Section 76.615(b)(7) requires that cable operators annually file with the Commission the results of signal leakage testing.[683] The reporting requirements of Section 76.6 15(b)(7) may impose undue burdens on small MVPDs. In the *Second Further Notice* below, we seek comment on whether certain MVPDs should be exempted from the reporting requirements of Section 76.615(b)(7).[684] Since Section 74.6 15(b)(7) is one of the provisions covered by the five-year transition period, all non-cable MVPDs will have five years to comply with the filing requirements; the *Second Further Notice* seeks comment on whether we should create a permanent exemption for certain types of MVPDs.

[679] We note that the signal leakage requirements under Part 15 of the Commission's rules will continue to apply during the transition period.

[680] 47 C.F.R. § 76.6 11.

[681] *See* ICTA Comments at 57-59; OpTel Comments at 16-17; Time Warner Reply Comments at 62.

[682] 47 C.F.R. § 76.615.

[683] 47 C.F.R. § 76.615(b)(7).

[684] *See* Section IV.C. below.

I. Signal Quality

1. Background

243. We sought comment in the *Inside Wiring Notice* on whether our cable signal quality standards should be extended to other broadband video service providers.[685] We noted that signal strength can be reduced by the use of poor cable, signal splitting for additional television sets, improper termination, and improper attachments of and to CPE.[686] We suggested, however, that the extension or further maintenance of signal quality standards may not be necessary due to the emergence of competition among broadband service providers.[687] We further sought comment on how our decisions in this rulemaking concerning the issues of access to wiring prior to termination of service, ownership and control of the wiring, and the location of the demarcation point would affect our signal quality requirements should they be maintained or extended.[688] We asked for comment generally on how any new or revised regulatory approaches proposed in the *Inside Wiring Notice* would affect signal leakage or signal quality considerations.[689]

244. Alternative video service providers generally oppose extension of the Commission's cable signal quality standards to other broadband service providers or believe that such extension is unnecessary.[690] They contend that increased competition among broadband service providers reduces the need to rely on Commission rules to ensure delivery of adequate levels of service.[691] These commenters believe that in a competitive marketplace providers of broadband service will be motivated to deliver an acceptable level of signal quality to attract and retain customers.[692] Cable operators, in contrast. support extension of signal quality requirements to all broadband service providers.[693] Time Warner argues, for

[685] *Inside Wiring Notice*, 11 FCC Rcd at 2760. Commission signal quality standards define the quality of television signal that cable subscribers are entitled to receive and, in particular, ensure the delivery of a good quality picture to the television set or video cassette recorder. See 47 C.F.R. §§ 76.601. 76.605, and 76.609.

[686] *Inside Wiring Notice*, 11 FCC Rcd at 2758.

[687] *Id.* at 2760.

[688] *Id.*

[689] *Id.*

[690] DIRECTV Comments at 11; NYNEX Comments at 19; GTE Comments at 14; GTE Reply Comments at 13; Bell Atlantic Reply Comments at 18; WCA Comments at 23; PacTel Comments at 10.

[691] *See* PacTel Comments at 10; NYNEX Comments at 19; GTE Comments at 14; GTE Reply Comments at 13; WCA Comments at 23; Bell Atlantic Reply Comments at 18; DIRECTV Comments at 11.

[692] *See* PacTel Comments at 10; NYNEX Comments at 19; GTE Comments at 14; GTE Reply Comments at 13; WCA Comments at 23; Bell Atlantic Reply Comments at 18; DIRECTV Comments at 11.

[693] Adelphia Comments at 5; Cox Comments at 24-27; Time Warner Comments at 36-37; see also New Jersey Ratepayer Advocate Comments at 3.

instance, that while a competitive environment may render signal quality standards unnecessary, they should be applied to all broadband service providers to the extent that they remain in force.""

2. Discussion

245. By statute, the Commission is charged with promulgating regulations governing the quality of television signals delivered to cable subscribers."' We believe that continued application of the Commission's signal quality standards to cable operators is necessary because, despite the recent entrance of other service providers into the video market, cable operators, in most areas of the country, still exercise significant market power.[696] We do not believe at this time that market forces alone will ensure that cable subscribers receive the quality picture they are entitled to expect. With regard to non-cable broadband service providers, we believe that government regulation of signal quality would be unnecessary and unduly intrusive. These alternative providers do not exercise market power and virtually always compete with an incumbent cable operator.""' We agree with those comments that contend that head-to-head competition with a cable operator should ensure that alternative MVPDs deliver a good quality picture in order to attract and retain customers. We believe that, as cable operators become subject to vigorous competition, market forces will ensure that they, too, deliver a good quality picture. As competition develops and its effects become clearer. we expect to leave the issue of signal quality *wholly* to market forces.

J. Means of Connection

1. Background

246. In the ***Inside Wiring Notice.*** we sought comment on whether the Commission should adopt uniform technical standards for jacks and connectors for broadband service."' We noted that adoption of uniform standards could yield certain benefits such as: (1) ensuring network integrity; (2) minimizing concerns over signal leakage and substandard signal quality by decreasing the frequency of incorrect connection by alternative providers; and (3) simplifying the use of existing wire and connections by alternative service providers."' We recognized, however, that use of a particular type of connector, known

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[694] Time Warner Comments at 36-37.

[695] Communications Act, § 624(e), 47 U.S.C. § 544(e)

[696] *See Third Annual Report,* CS Docket No. 96-133 (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming), 12 FCC Rcd 4358, 4425 (1997) ("... cable MSOs continue to be the main distributors of multichannel video programming, with 89% of total MVPD subscribers.").

[697] *See id.* at para. 13 (revealing that at year end 1995 cable service was available to 96.7% of all television households in the United States).

[698] *Inside Wiring Notice,* 11 FCC Rcd at 2761. While the Commission does not currently have specific rules governing the type of connectors used to attach coaxial cable to customer premises equipment, the Commission does define the technical specifications for jacks that interface with the telephone network. See subpart F of 47 C.P.R. Part 68.

[699] *Inside Wiring Notice,* 11 FCC Rcd at 2761.

as the "F-type connector," is already prevalent in the cable television industry and that Commission adoption of connection standards may, therefore, be unnecessary.[700] We also solicited comment on whether the Commission should establish technical standards for connections to cable networks or broadband service where multiple services are delivered over a single wire.[701]

247. Virtually all of the parties commenting on the means of connection focused on the issue of whether the Commission should adopt uniform technical requirements for connections to broadband service."[702] A majority of the commenters addressing the connection issue either oppose Commission adoption of specific standards for jacks and connectors for broadband service or believe that if broadband connections standards are to be established, they should be developed by industry standard-setting entities rather than the Commission.[703] Commenters that oppose Commission adoption of uniform standards, such as cable interests and property management firms, generally contend that marketplace forces have established the F-type connector as the de facto standard for connecting coaxial cable to CPE.[704] These commenters maintain that, in light of the cable industry's pervasive use of the F-type connector, standardization of broadband connections already exists and Commission action in this area is

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[700] *Id.* at 2760-61.

[701] *Id.* at 2761.

[702] *But* see AT&T Comments at 19 (supporting the development of technical standards for jacks used to interface between broadband common carrier service and the telephone network).

[703] *See* Time Warner Comments at 3 l-34: NCTA Comments at 35-36; Cox Reply Comments at 15; WCA Comments at 24; SBC Reply Comments at 6; New Jersey BPU Comments at 12; PacTel Reply Comments at 4 (also supporting industry development of a universal connection device located at the demarcation point to which broadband and narrowband providers can connect their facilities); Building Owners, et al., Comments at 41-42; Asset Mgt. & Consulting Comments at 1; Anthem Equity Comments at 2; Colonial Manor Apts. Comments at 2; Gorsuch Mgt. Comments at 2; Institute of Real Estate Mgt. Comments at 2; IPM Real Estate Comments at 1; Koll Real Estate Comments at 2; Lakeside Comments at 2; Lane Company Comments at I ; LCOR Comments at I ; Ledic Mgt. Comments at 2; Live Oak Properties Comments at 1; Lockwood Group Comments at 2; Mgt. Services Comments at 2; MarRay-Ash Plaza Comments at 3; Mendik Realty Comments at 2; MetLife Comments at 4-5; Nat'l Assn. of Real Estate lnvestment Trusts Comments at 2; NP Dodge Mgt. Comments at 2; Patriot American Comments at 2; Southridge Manor Apts. Comments at 2; Spokane BOMA Comments at 2; Terry Johnson & Assoc. Comments at 2; West World Mgt. Comments at 2; Zehman-Wolf Mgt. Comments at 1; USTA Comments at 5; GTE Comments at 14-15; GTE Reply Comments at 14 (but suggesting establishment of minimum standards and qualifications applicable to third parties that install broadband wiring); Ameritech Comments at 16-17; Ameritech Reply Comments at 9; DIRECTV Comments at 11; Charter/Comcast Comments at 19.

[704] "Time Warner Comments at 3 l-36; NCTA Comments at 35-36; WCA Comments at 24; New Jersey BPU Comments at 12; USTA Comments at 5; see also SBC Reply Comments at 6; Building Owners, et al., Comments at 41-42; Asset Mgt. & Consulting Comments at 1; Anthem Equity Comments at 2; Colonial Manor Apts. Comments at 2; Gorsuch Mgt. Comments at 2; lnstitute of Real Estate Mgt. Comments at 2; IPM Real Estate Comments at 1; Koll Real Estate Comments at 2; Lakeside Comments at 2; Lane Company Comments at 1; LCOR Comments at 1; Ledic Mgt. Comments at 2; Live Oak Properties Comments at 1; Lockwood Group Comments at 2; Mgt. Services Comments at 2; MarRay-Ash Plaza Comments at 3; Mendik Realty Comments at 2; MetLife Comments at 4-5; Nat'l Assn. of Real Estate Investment Trusts Comments at 2; NP Dodge Mgt. Comments at 2; Patriot American Comments at 2; Southridge Manor Apts. Comments at 2; Spokane BOMA Comments at 2; Terry Johnson & Assoc. Comments at 2; West World Mgt. Comments at 2; Zehman-Wolf Mgt. Comments at 1.

unwarranted. Other commenters argue that Commission action is unnecessary because an industry standard-setting body is more likely to be responsive to new and evolving technology.[705] These commenters maintain that, given the rapid pace of technological innovation, government regulations established today may be irrelevant tomorrow.[706] A few commenting parties urge the Commission to adopt technical standards, to be developed by the industry, for broadband connections.-" CEMA and MCI claim that without the adoption of uniform standards for jacks and other connectors. service providers would be free to use proprietary interfaces with which only their wiring and equipment can properly connect.[708] CEMA argues that use of such proprietary interfaces would permit dominant service providers to maximize the sale of their own CPE and thwart competition among equipment manufacturers and service providers.[709]

2. Discussion

248. Based on the record, we will not adopt uniform technical standards for jacks and connectors for broadband service. As several commenters in this proceeding have noted, the F-type connector has emerged as the de facto broadband connection standard within the cable industry. We believe that, properly used, the F-type connector is an effective means of connecting coaxial cable to CPE while minimizing the potential for signal leakage. The comments additionally indicate that non-cable video service providers use the F-type connector to connect their services via coaxial cable to CPE. Further government action in this area is therefore unwarranted at this time. In addition, in light of the fact that we are extending our cable signal leakage rules to all broadband service providers. we believe that such providers will have the incentive and obligation to ensure that connections are properly made with high quality materials, without the Commission mandating a connection standard.

K. Dual Regulation

1. Background

249. In the *Inside Wiring Notice,* we recognized that cable companies and telephone companies operate under different regulatory frameworks."[710] We indicated that as technology advances to permit the delivery of cable and telephone services over the same wire, and as single companies develop the capacity

[705] *See,* e.g., PacTel Reply Comments at 4; DIRECTV Comments at 11.

[706] *See,* e.g., PacTel Reply Comments at 4; Charter/Comcast Comments at 19.

[707] CEMA Comments at 7-8; CEMA Reply Comments at 5; MCI Reply Comments at 2; U S West Comments at 10- 11 (urging Commission adoption of similar rules for both telephone and cable connectors); see also NYNEX Comments at 18 (recommending that the Commission utilize industry forums and standards bodies to develop minimum technical standards and guidelines for cable CPE, such as jacks, plugs, and set top boxes).

[708] CEMA Comments at 8; CEMA Reply Comments at 5; MCI Reply Comments at 2.

[709] CEMA Reply Comments at 5; CEMA Comments at 8.

[710] *Inside Wiring Notice,* 11 FCC Rcd at 277 l-73.