

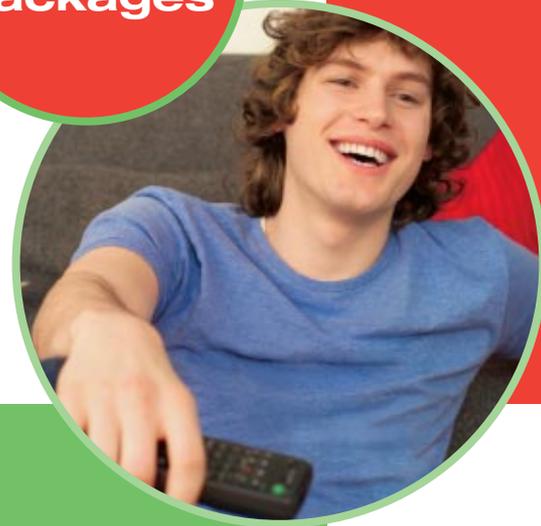
SAMPLE - FOR INFORMATION PURPOSES ONLY

**Customer  
Service**

**1-888-553-1555**



**Rates &  
Packages**



*We never stop working for you.*



*We never stop working for you.*

Here's everything you need to create your perfect FIOS™ TV package. First, choose your service. Then, add it from our selection of digital packages and premium channels below.

## SAMPLE - FOR INFORMATION PURPOSES ONLY

Refer to the Channel Lineup for a complete listing of the channels included in each package.

Service	Number of Channels	Monthly Price
Basic <sup>1</sup>	15-35	\$12.95
Digital Service (Requires Set Top Box [STB] and Router <sup>2</sup> )		
Expanded Basic <sup>3</sup>	160 + Basic	\$39.95
La Conexión <sup>4</sup>	115 + Basic	\$32.95

Now, add more channels for just a few dollars more.

Packages <sup>5</sup> (Requires STB)	Number of Channels	Monthly Price
Sports Package	15	\$5.95
Movie Package	44	\$11.95
Sports/Movie Package Combination	59	\$14.95
Spanish Language Package	25	\$11.95

Premium Channels <sup>6</sup> (Requires STB)	Number of Channels	Monthly Price
HBO <sup>6</sup>	14	\$14.95
Cinemax <sup>6</sup>	12	\$14.95
HBO/Cinemax Combination	26	\$24.95
Playboy TV <sup>6</sup> /Playboy TV en Español	2	\$14.95

International Premiums <sup>7</sup> (Requires STB)	Number of Channels	Monthly Price
International Premium Channels	16	Individually Priced

Video On Demand (VOD) and Pay Per View (PPV) (Requires STB)	Price
On Demand Movies	
New Releases	\$3.95
Library	\$2.95
On Demand Subscriptions	
WWE	\$7.95/mo.
On Demand Adult	\$11.95
PPV Movies	\$3.95
PPV Events	Varies
PPV Sports	Varies

**Save \$5 per month when qualifying voice or data services are bundled with FIOS TV Digital Service.**

<sup>1</sup>In order to be eligible for the Movie Package or Sports Package, Expanded Basic or La Conexión is required. The Spanish Language Package may be added to Basic service, but requires a Set Top Box for access. The addition of a Set Top Box with Basic service provides access to Video on Demand and Pay Per View, as well as the ability to order Premium Channels and International Premiums.

<sup>2</sup>Router provided will be a new or fully inspected, tested and warranted return unit. If service is cancelled within the first 12 months, router must be returned or \$49.99 equipment fee applies. If you maintain service for twelve (12) consecutive months, ownership of the router shall transfer to you, after which all maintenance of the router shall be at your sole cost and expense, and the risk of loss will be yours should the router be damaged or stolen.

<sup>3</sup>Expanded Basic includes all Basic channels, additional all-digital programming, digital music channels and access to Pay Per View and Video on Demand (VOD).

<sup>4</sup>La Conexión includes all Basic channels, digital programming including popular English-language networks and Spanish-language networks, digital music channels, and access to PPV and VOD. La Conexión cannot be combined with the Spanish Language Package.

Set Top Box (STB)	Monthly Price
Standard Definition	\$3.95
High Definition (includes HDTV channels)	\$9.95
Digital Video Recorder (includes HDTV channels)	\$12.95

Initial Installation	One-Time Charges
Existing Outlet Hookup (up to 3)	\$50.00
Additional Outlet/Set Top Box Hookup (existing outlet)	\$19.95
New Outlet Installation (per outlet)	\$54.95
Outlet Relocation	\$54.95

Subsequent Installations/Charges	One-Time Charges
Set Top Box Addition or Upgrade/Downgrade	\$24.95
Premises Visit <sup>8</sup>	\$50.00
New Outlet Installation (per outlet)	\$54.95
Outlet Relocation (per outlet)	\$54.95
Setup of TV Equipment (new TV with existing STB)	\$50.00
Disconnect of Set Top Box <sup>9</sup>	\$24.95 + \$5.00/STB
Downgrade of Service from Digital to Analog	\$50.00 + \$5.00/STB
FIOS TV Service Disconnect	No Charge
FIOS TV Service Reconnect (up to 3 outlets) <sup>9</sup>	\$50.00

Other Services and Charges	One-Time Charges
Seasonal Service Suspension (charged at initiation, 2-6 months) <sup>10</sup>	\$24.95
Replacement Remote	\$5.00 + Shipping & Handling
Unreturned/Damaged Receiver — Standard Definition	\$240.00
Unreturned/Damaged Receiver — High Definition	\$350.00
Unreturned/Damaged Receiver — Digital Video Recorder (DVR)	\$550.00

<sup>5</sup>Expanded Basic or La Conexión required for purchase of Movie Package or Sports Package. The Spanish Language Package may be added to Basic service. 30-day minimum billing period required for all digital packages.

<sup>6</sup>Subscription Video on Demand is included with all Premium Channels at no extra charge (where applicable). 30-day minimum billing period required for all Premium Channels and International Premiums.

<sup>7</sup>A premises visit charge is assessed when relocating or installing new outlets, or when a technician installation is required to set up a new or additional TV with an existing FIOS TV STB. A premises visit charge is not assessed when adding new, upgrading/downgrading existing or disconnecting STB receivers.

<sup>8</sup>The STB disconnect charge is assessed only when the customer maintains at least one FIOS TV STB. If all STB receivers are disconnected, the service downgrade charge applies.

<sup>9</sup>The reconnect fee applies when establishing service after a service disconnect.

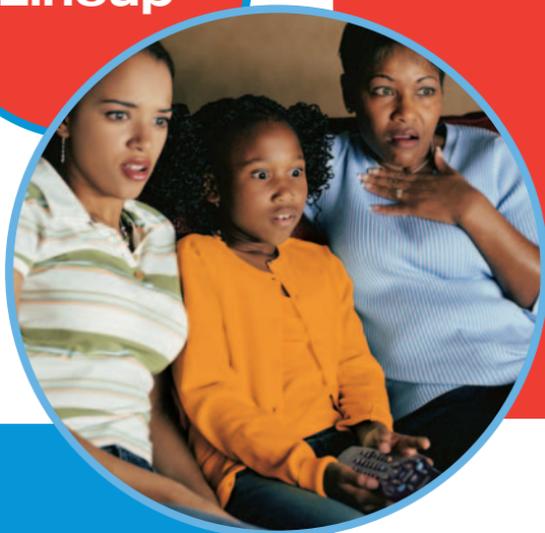
<sup>10</sup>Seasonal service suspension requires a minimum suspension of two months and a maximum suspension of six months.

Programming services offered within each package are subject to change, and the number of channels within each package are approximations. Not all programming services will be available at all times. Blackout restrictions also apply. In addition, the pricing of the packages and the terms and conditions regarding your use of Verizon FIOS TV are also subject to change. Pricing applies to residential use only within the United States. Not all services are available in all areas. Acceptance of the FIOS™ TV Terms of Service is required in order to use FIOS TV, and a copy of the Terms of Service will be given to you at the time of installation. The customer is financially responsible for any damage to, or misuse of, any equipment or for the failure to return any equipment if service is terminated. Applicable franchise fees, regulatory fees and taxes apply. Other terms and conditions apply. ©2005 Verizon. All Rights Reserved.

**Verizon** FiOS TV

Woburn  
Channel Lineup

**Channel  
Lineup**



*We never stop working for you.*

## Woburn



Basic

- 2** PBS — WGBH
- 3** UPN — WSBK
- 4** CBS — WBZ
- 5** ABC — WCVB
- 6** WNDS
- 7** NBC — WHDH
- 8** FOX — WFXT
- 9** ABC — WMUR
- 10** Telemundo — WNEU
- 11** ETV — WENH
- 12** WB — WLVI
- 13** Superstation — WGN-TV 9
- 14** Local Education
- 15** Local Education
- 16** Local Government
- 17** PAX — WBPX
- 20** WMFP
- 21** Telefutera — WUTF
- 22** Local Education
- 25** ETV — WYDN
- 27** Univision — WUNI
- 44** PBS — WGBX
- 46** WWDP
- 47** TV Guide
- 49** Weatherscan Local

**Entertainment**

- 50 USA Network
- 51 TNT
- 52 TBS
- 53 FX
- 54 Spike TV

**Sports**

- 60 ESPN
- 61 ESPN Classic
- 62 ESPNNews
- 63 ESPNU
- 64 ESPN 2
- 65 New England Sports Network
- 66 Fox Sports Net — New England
- 68 Speed Channel

**News**

- 70 CNN
- 71 CNN Headline News
- 72 Fox News
- 73 CNBC
- 74 MSNBC
- 75 Bloomberg TV
- 76 CNN International
- 77 CNBC World
- 78 ABC News Now
- 79 C-SPAN
- 80 C-SPAN 2
- 81 C-SPAN 3
- 89 The Weather Channel

**Information**

- 90 Discovery Channel
- 91 National Geographic
- 92 Science Channel
- 93 Discovery Times
- 94 Pentagon Channel
- 95 Military Channel
- 96 Military History Channel
- 97 History Channel International
- 98 History Channel
- 99 Biography Channel

- 100 Animal Planet
- 101 TLC (The Learning Channel)

**Women**

- 110 Lifetime
- 111 Lifetime Movie Network
- 112 Lifetime Real Women
- 113 SoapNet
- 114 Oxygen

**Shopping**

- 120 QVC
- 121 HSN
- 122 Shop at Home
- 123 America's Store
- 125 Jewelry
- 126 EXPO
- 127 Shop NBC

**Home & Leisure**

- 130 Style
- 131 Discovery Health
- 132 Wisdom
- 133 Fit TV
- 134 Food Network
- 135 HGTV (Home & Garden Television)
- 136 Fine Living
- 137 DIY (Do It Yourself)
- 138 Discovery Home
- 139 Wealth TV
- 140 Travel Channel

**Pop Culture**

- 150 Sci-Fi Channel
- 151 A&E
- 152 Crime & Investigation Network
- 153 Court TV
- 154 GSN
- 155 Bravo
- 156 TRIO
- 157 Logo
- 158 Ovation
- 159 BBC America
- 160 Comedy Central
- 161 E! Entertainment Television

- 162 Fox Reality
- 163 Fuel
- 164 ABC Family

**Music**

- 170 MTV
- 171 MTV2
- 173 MTV Jams
- 174 MTV Hits
- 175 VH1
- 176 VH1 Classic
- 177 VH1 Soul
- 179 BET Jazz
- 180 CMT
- 181 VH1 Country
- 182 Great American Country
- 183 Gospel Music Channel
- 184 BET Gospel
- 185 Soundtrack Channel

**Movies**

- 190 Turner Classic Movies
- 192 Fox Movie Channel

**Family**

- 200 Hallmark Channel
- 202 Family Net
- 203 AmericanLife TV
- 204 TV Land

**Children**

- 210 Disney
- 211 Toon Disney
- 212 Nickelodeon
- 213 Nick Too
- 214 Nick Toons
- 215 GAS
- 216 Noggin
- 217 Cartoon Network (ESP)\*
- 218 Boomerang
- 219 Discovery Kids

**People & Culture**

- 230 BET
- 231 TV One
- 232 Black Family Channel
- 234 Galavisión
- 235 Mun2

- 236 Si TV
- 237 AZN Television

### Religion

- 240 EWTV
- 241 INSP
- 242 I-Life
- 243 Church
- 244 JCTV
- 411 Verizon Information

### Sports

- 300 Fox College Sports — Atlantic
- 301 Fox College Sports — Central
- 302 Fox College Sports — Pacific
- 303 Tennis Channel
- 304 NFL Network
- 307 Outdoor Channel
- 308 The Sportsman Channel
- 311 Fox Sports Español
- 312 Fox Soccer Channel
- 313 GoITV
- 315 TVG (Horse Racing)
- 316 Horse Racing TV
- 318 Mav TV
- 319 Blackbelt TV
- 320 G4

### Movies

- 340 Starz!
- 341 Starz! West
- 342 Starz! Edge
- 343 Starz! Edge West
- 344 Starz! in Black
- 345 Starz! Kids & Family
- 346 Starz! Cinema
- 347 Starz! Comedy
- 348 Encore
- 349 Encore West
- 350 Encore Love
- 351 Encore Love West
- 352 Encore Westerns
- 353 Encore Westerns West

- 354 Encore Mystery
- 355 Encore Mystery West
- 356 Encore Drama
- 357 Encore Drama West
- 358 Encore Action
- 359 Encore Action West
- 360 Encore WAM!
- 361 Showtime
- 362 Showtime West
- 363 Showtime Showcase
- 364 Showtime Showcase West
- 365 Showtime Too
- 366 Showtime Too West
- 367 Showtime Beyond
- 368 Showtime Beyond West
- 369 Showtime Extreme
- 370 Showtime Extreme West
- 371 Showtime Women
- 372 Showtime Women West
- 373 Showtime Next
- 374 Showtime Next West
- 375 Showtime Family Zone
- 376 Showtime Family Zone West
- 377 The Movie Channel
- 378 The Movie Channel West
- 379 The Movie Channel Xtra
- 380 The Movie Channel Xtra West
- 381 Flix
- 382 Flix West
- 384 Sundance

### HBO

- 400 HBO
- 401 HBO West
- 402 HBO 2
- 403 HBO 2 West
- 404 HBO Signature
- 405 HBO Signature West
- 406 HBO Family
- 407 HBO Family West

- 408 HBO Comedy
- 409 HBO Comedy West
- 410 HBO Zone
- 412 HBO Zone West
- 413 HBO Latino
- 414 HBO Latino West

### Cinemax

- 415 Cinemax
- 416 Cinemax West
- 417 More Max
- 418 More Max West
- 419 Action Max
- 420 Action Max West
- 421 Thriller Max
- 422 Thriller Max West
- 423 Women's Max
- 424 At Max
- 425 Five Star Max
- 426 OuterMax

### Other Premium Channels

- 430 Playboy TV
- 431 Playboy TV en Español

### En Español

- 440 Galavisión
- 442 ESPN Deportes
- 443 Fox Sports World Español
- 444 GoITV
- 446 CNN en Español
- 447 Canal SUR
- 448 TVE Internacional
- 452 History Español
- 453 Discovery en Español
- 456 Infinito
- 457 MTV Español
- 458 VH Uno
- 459 Telehit
- 462 De Película
- 463 De Película Clásico
- 464 Cine Latino
- 465 Cine Mexicano
- 468 La Familia Cosmovision
- 469 TV Chile

Sports Package

Movie Package

Movie Package

Premium Channels

Premium Channels

Spanish Language Package

- 470 TV Colombia
- 472 Sorpresa
- 473 Toon Disney Español
- 474 Boomerang (ESP)\*
- 477 TBN Enlace
- 478 EWTN Español

**International Premiums**

- 480 SBTN (Vietnamese)
- 481 CCTV-4 (Mandarin Chinese)
- 482 CTI — Zhong Tian Channel (Chinese)
- 483 TV Japan
- 484 MBC (Korean)
- 485 The Filipino Channel
- 486 TV Asia
- 487 ART (Arabic)
- 488 RAI (Italian)
- 489 TV 5 (French)
- 490 TVP Polonia (Polish)
- 491 Rang A Rang (Farsi)
- 492 RTN Russian
- 493 Channel 1 Russian
- 496 Bridges TV
- 499 MTV Desi

**Entertainment**

- 500 USA Network
- 501 TNT
- 502 TBS
- 503 Galavisión
- 504 FX
- 505 Spike TV

**Sports**

- 508 ESPN Deportes
- 510 New England Sports Network
- 511 Fox Sports Net — New England
- 513 Fox Sports World Español
- 514 Fox Soccer Channel
- 516 GoTV

**News**

- 518 CNN en Español
- 519 CNN
- 520 CNN Headline News

- 521 Fox News
- 522 CNBC
- 523 MSNBC
- 524 C-SPAN
- 525 Canal Sur

**Information**

- 529 TVE Internacional
- 530 History Español
- 531 Discovery Channel
- 532 Discovery en Español
- 534 Animal Planet
- 535 TLC (The Learning Channel)

**Women**

- 537 Lifetime
- 538 Lifetime Movie Network

**Shopping**

- 540 QVC
- 541 HSN
- 542 Shop at Home
- 543 Shop NBC

**Home & Leisure**

- 545 Discovery Health
- 549 Infinito
- 550 Food Network
- 551 HGTV (Home & Garden Television)
- 552 Travel Channel

**Pop Culture**

- 555 E! Entertainment Television
- 556 A&E
- 557 Sí TV
- 558 Mun2
- 559 Comedy Central
- 560 Sci-Fi Channel

**Music**

- 562 MTV Español
- 563 MTV2
- 564 Telehit
- 565 VH Uno
- 566 CMT

**Movies**

- 569 De Película
- 570 De Película Clásico
- 571 Cine Mexicano
- 572 Cine Latino

**Family**

- 574 ABC Family
- 575 La Familia
- 576 TV Chile
- 577 TV Colombia
- 578 TV Land

**Children**

- 580 Nickelodeon
- 581 Disney Español
- 582 Toon Disney Español
- 583 Boomerang (ESP)\*
- 584 Cartoon Network (ESP)\*
- 585 Sorpresa

**Religion**

- 588 TBN Enlace
- 589 EWTN Español

**Digital Music**

- 600 Showcase
- 601 Today's Country
- 602 Classic Country
- 603 Bluegrass
- 604 R&B and Hip-Hop
- 605 Classic R&B
- 606 Smooth R&B
- 607 R&B Hits
- 608 Rap
- 609 Metal
- 610 Rock
- 611 Arena Rock
- 612 Classic Rock
- 613 Alternative
- 614 Retro-Active
- 615 Electronica
- 616 Dance

Digital Music

**Digital Music (cont.)**

- 617** Adult Alternative
- 618** Soft Rock
- 619** Hit List
- 620** Party Favorites
- 621** 90s
- 622** 80s
- 623** 70s
- 624** Solid Gold Oldies
- 625** Singers & Standards
- 626** Big Band & Swing
- 627** Easy Listening
- 628** Smooth Jazz
- 629** Jazz
- 630** Blues
- 631** Reggae
- 632** Soundscapes
- 633** Classical Masterpieces
- 634** Opera
- 635** Light Classical
- 636** Show Tunes
- 637** Contemporary Christian
- 638** Gospel
- 639** Radio Disney
- 640** Sounds of the Seasons
- 641** Música Urbana
- 642** Salsa y Merengue
- 643** Rock en Español
- 644** Pop Latino
- 645** Mexicana
- 646** Americana

**Pay Per View**

- 700** Movie/Event Previews
- 701** TVN Events

**HDTV Broadcast**

- 802** PBS — WGBH
- 803** UPN — WSBK
- 804** CBS — WBZ
- 805** ABC — WCVB
- 806** WB — WLVI
- 807** NBC — WHDH
- 808** FOX — WFXT

HDTV

**HDTV National**

- 810** TNT HDTV
- 811** ESPN HDTV
- 812** ESPN 2 HDTV
- 814** NFL Network HDTV
- 817** HD Net
- 818** HD Net Movies
- 819** Universal HDTV
- 820** Discovery HDTV
- 821** Wealth TV HD

**HDTV Premium**

- 830** HBO HDTV
- 831** Cinemax HDTV
- 832** Showtime HDTV
- 833** TMC HDTV
- 834** Starz! HDTV

**Basic Plus**

- 850** NBC Weather Plus

Basic Plus

Video on Demand

**Subscriptions\***

- Cinemax
- HBO
- Showtime
- Starz!
- Sundance
- The Movie Channel
- WWE
- Playboy

**Adult**

- Events
- Hustler
- Spice
- TEN
- Playboy Subscribers\*

**FIOS TV Help**

\*Subscription to corresponding premium channels and packages required.

Programming services offered within each package are subject to change, and not all programming services will be available at all times. Blackout restrictions also apply.

**VIDEO ON DEMAND**

- 900** On Demand Access & Menu

**Kids FREE****ALL FREE**

- Home & Leisure
- Info & Education
- Kids
- Movies
- Music
- News
- Pop Culture
- Shopping
- Sports

**Movies**

- New Movies
- New by Category
- All Movies
- All Movies by Category
- In Theaters
- En Español

Digital Music

PPV

HDTV

Basic Plus

VOD



**Customer  
Service**

**1-888-553-1555**



*We never stop working for you.*

## FTTP System Architecture

### End-to-End Architecture

Figure 1 shows the architecture topology for supporting service across multiple market areas. A brief summary of the end-to-end architecture follows. Subsequent sections provide more information on each major component within the planned Verizon FTTP overlay architecture.

Figure 2 shows full build and overlay architecture. FTTP will be built instead of copper facilities in new communities. In existing communities, the existing copper network will continue to serve those customers who have not migrated to the FTTP network. The fiber is deployed from a Central Office location within a wire center area.

Figure 1-High Level End to End Architecture

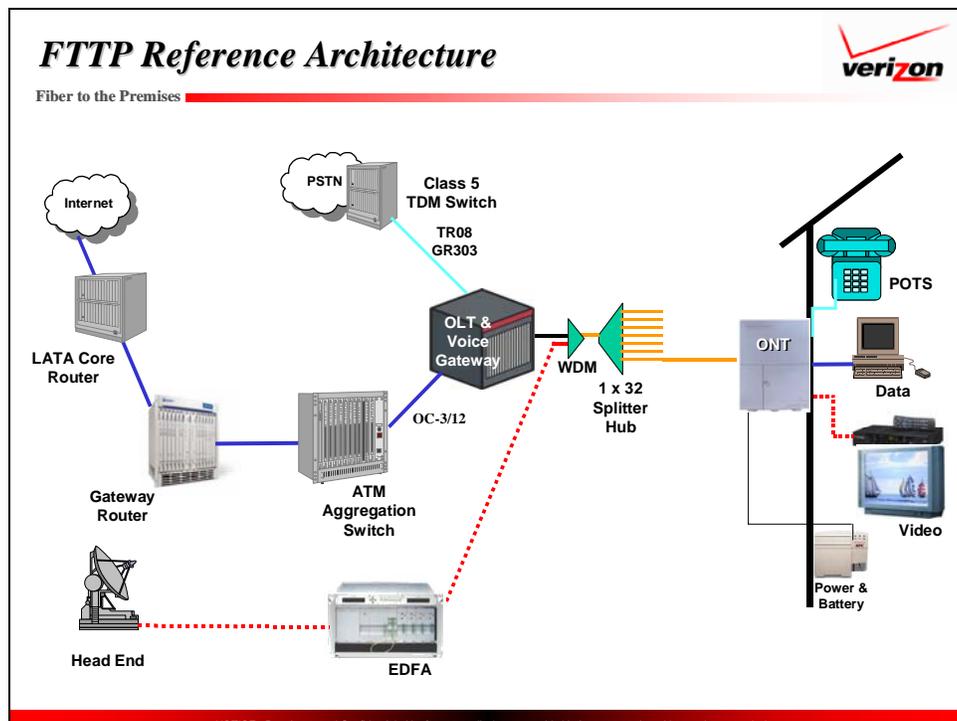
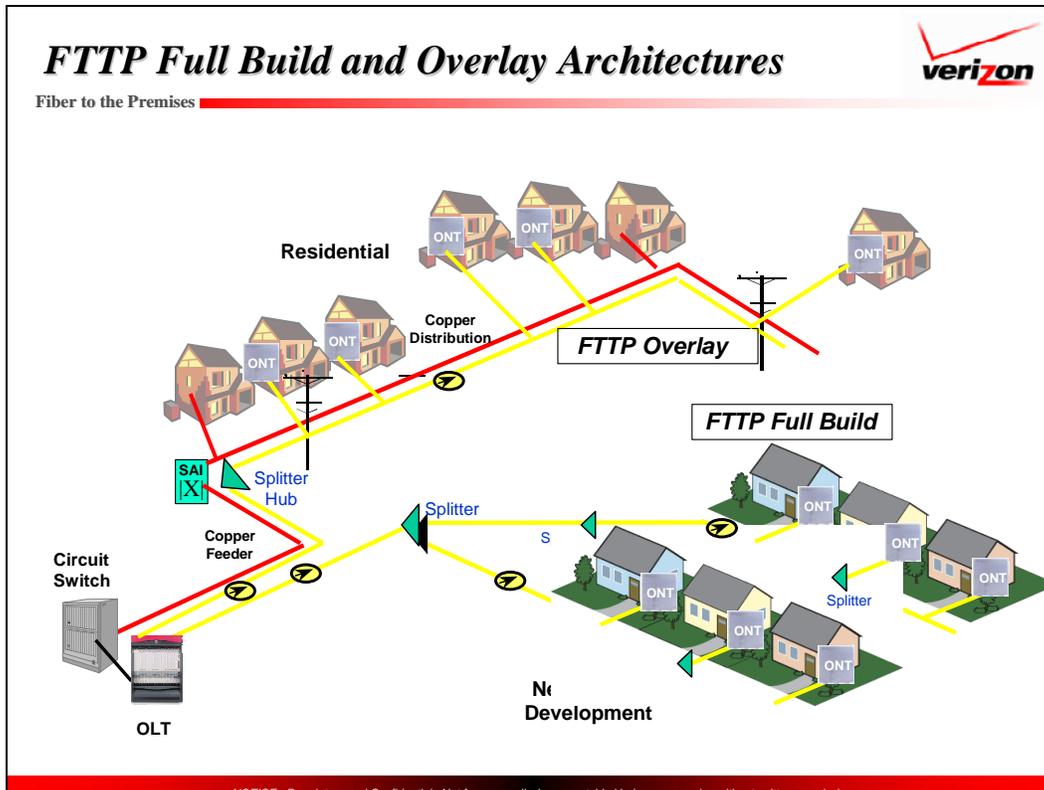


Figure 2-FTTP Full Build and Overlay Architectures



At the national or regional level, a “super” headend (SHE) shall serve as the single point of national content aggregation (see Figure 1). All content shall be encoded into MPEG2 streams and transported over nationwide SONET services. In each market where Verizon seeks to offer service, the broadcast cable television traffic is off loaded from the long haul network and terminated at a Video Hub Office (VHO). Network redundancy and route diversity shall extend from the SHE to the VHO.

The VHO serves as the metro or local point of aggregation. It is here that off-air and public, education, and government (PEG) channels (where appropriate) are combined with the broadcast cable television coming from the SHE. Interactive Program Guides (IPG) shall be controlled from this site, also. The service that exits the VHO shall look like the final product viewed by the end user subscriber.

Cable television traffic is converted to optical signals at the VHO and transported over Verizon’s metro area, inter-office facilities (IOF) to Video Serving Offices (VSOs). Voice and high-speed data signals are combined with the cable television at this location for final transport to the subscriber premises over Verizon’s FTTP Passive Optical Network (PON).

At the premise, the optical cable television signal is de-multiplexed and converted to an electrical signal, which meets cable television industry standards for cable services. Standard home wiring

practices, using coaxial cables, as well as alternative media, shall distribute the signal to cable ready TVs and standard set top boxes (STB).

There will be 24x7 control and surveillance of the cable television platform from a remote location. This Network Operations Center (NOC) will be centrally located and shall be responsible for the operation and maintenance of the Conditional Access System (CAS), which directs the encryption functions performed back at the VHO.

### Super Headend (SHE)

A “super” headend (SHE) shall serve as the single point of national content aggregation. At general service availability, Verizon shall deploy a primary SHE and an additional SHE for redundancy.

Both the primary and redundant SHEs will be strategically located to ensure technical and environmental requirements are met.

The key functions of the SHE include:

Content Reception

Signal Processing

Encoding

Network Interface

The majority of cable television sources shall be individual content provider programming. A mix of standard and high definition formats shall be supported. All content shall be encoded into MPEG2 streams, formatted for SONET, and transported via an OC48c to a local point-of-presence (POP) for wide area (national) transport.

### **Wide Area Transport**

In support of the cable television service, Verizon will use OC48c SONET facilities in the POPs serving target cable markets. Where multiple POPs exist within a market, redundancy options shall dictate if a single or multiple POPs shall be designated for supporting the cable television traffic.

In most cases, it is expected that the cable television traffic shall traverse multiple interconnected rings between the SHE and the destination market. Once the cable traffic reaches a POP located in a target market, it will be forwarded to an OC48c SONET interface connected to metro/local SONET facilities. These facilities shall connect the POP to a Video Hub Office (VHO). VHOs are capable of serving multiple communities within a target market. If more than one VHO is required, the metro SONET ring(s) would be deployed to cover multiple sites.

### Video Hub Office (VHO)

The VHO serves as the metro or local point of aggregation. The VHO location is based on a combination of technical factors, metro fiber/IOF availability, local channel reception characteristics, and municipal regulations (e.g., zoning ordinances).

Under current network design plans, the anticipated functions of the VHO include:

WAN Interface for Cable television Transport

Ad Insertion

PEG Content

Signal Grooming and Multiplexing

Emergency Alert Service

Interactive Program Guide

Conditional Access

Local Content

The VHO shall aggregate three basic sources of content: national broadcast channels, local broadcast channels, and public, education, & government (PEG) channels. The national content is the traffic sent from the SHE and is delivered via an OC48c SONET interface from the SONETPOP. The local broadcast channels shall be received off-air via antennas or terrestrial fiber transport located at the VHO site. The PEG channels shall be collected via terrestrial connections from each local franchising area (LFA) served by the VHO. Finally, based on Verizon service tiering requirements to support an analog tier, a certain subset of channels shall be converted from digital to analog signals at the VHO (or kept in analog format if local or PEG).

The final collection of content is placed into the RF spectrum between 50 – 870 MHz as either an analog AM-VSB signal or, as part of a digital multiplex, into a 256-QAM modulated carrier. Digital content requiring encryption by the CAS shall also be multiplexed into QAM modulators and combined with other analog and digital carriers. In addition, an out-of-band downstream channel is generated which carries the Interactive Program Guide (IPG), provisioning, and management messages to STBs. The combined RF signal is converted to optics and fed into EDFAs at egress from the VHO. These optical cable television signals are transported on the 1550 nm wavelength of the G.983-specified Enhancement band to Verizon Video Serving Offices (VSOs).

As noted previously, it is intended that the broadcast cable television traffic/service that exits the VHO shall look like the final product viewed by the end user subscriber.

### Metro Area Transport

The optical cable television signals coming from the VHO are transported on the 1550 nm wavelength over fiber available within Verizon's inter-office facilities (IOF).

### Video Serving Office (VSO) & Passive Optical Network (PON)

The Video Serving Office (VSO) is a location within the central office containing FTTP equipment. If technically feasible or otherwise appropriate, PEG insertion may occur at this location in the network.

The key function of the VSO is to combine Broadcast Cable television into the Voice and High Speed Data FTTP Network

Once in the VSO, the optical cable television signal is sent through an EDFA and then to a Wave Division Multiplexer (WDM) combiner and splitter, which is used to add the cable signal to the voice and high-speed data signals' wavelength (1490nm) – coming from the Optical Line Terminal (OLT) – together with the cable wavelength onto a single optical source. This optical signal is then sent towards the subscriber premises via a PON. The VSO will also play a role in supporting upstream signals from the customer premises for pay-per-view services. Pay-per-view usage data uses the data service's 1310nm upstream wavelength. The upstream data communications shall be sent back to a subscriber database located in the Operations Center located in the VHO.

### Customer Premises

At the premise, an Optical Network Terminal (ONT) de-multiplexes the 1550nm optical signal and simply converts it to a voice, data and cable television electrical signal, which meets cable television industry standards for cable services.

It is expected that, in many cases, standard home wiring practices, using coaxial cables, will distribute the signal to cable ready televisions (for analog-only subscribers) and to STBs for digital subscribers.