

NETWORK MANAGEMENT DISCLOSURE

Updated December 2017

Rules issued by the Federal Communications Commission (“FCC”) require broadband Internet access providers, such as Vyve Broadband, LLC (together with its subsidiaries, “Vyve”), to publish certain information about their broadband Internet access services. In accordance with these rules, this disclosure provides information about three aspects of Vyve’s residential and small business broadband Internet access services: (1) the network management practices we use to manage our broadband network; (2) key performance characteristics of our residential and small business broadband services; and (3) certain commercial terms that apply to these services. These disclosures are intended to provide information to customers who currently subscribe to Vyve’s residential and small business broadband Internet access services or who may do so in the future, as well as to providers of “edge” products (i.e., providers of applications, devices, services and content accessed over and connected to Vyve’s broadband Internet access service).

This disclosure relates solely to that portion of our network devoted to providing broadband Internet access service to our customers. Other portions of our network may be used to provide cable service, phone service or other information or specialized services, each of which is subject to its own terms and conditions of service. For further information regarding the services offered by Vyve in your area and the terms and conditions of Vyve’s policies relating thereto, please visit our website at <http://www.vyvebroadband.com> or call us at 1.855.FOR.VYVE.

While this disclosure is intended to be thorough and current, Vyve expects to continue evaluating its approach to network management in response to changes in technology and Internet usage, and it reserves the right to adopt new or different management practices. Vyve will provide updates to these disclosures that reflect such changes when we make them, and the information in this statement maybe revised and updated from time to time as Vyve deems appropriate. In addition, other aspects of Vyve’s services, such as prices and performance capabilities, are subject to change. Updated information can always be found by visiting Vyve’s website at <http://www.vyvebroadband.com>.

PLEASE READ THIS DOCUMENT CAREFULLY. IT SERVES AS AN “ADDENDUM” TO THE RESIDENTIAL SERVICES SUBSCRIBER AGREEMENT, BUSINESS SERVICES SUBSCRIBER AGREEMENT, ACCEPTABLE USE POLICY AND OTHER CUSTOMER AGREEMENTS THAT GOVERN YOUR USE OF VYVE’S SERVICES, INCLUDING YOUR USE OF OUR INTERNET SERVICE. See <http://www.vyvebroadband.com/policies> for related documents and disclosures governing your Internet service.

I. NETWORK MANAGEMENT PRACTICES

Vyve tries to ensure that those who use its broadband network have a high quality online experience. The bandwidth and network resources used to deliver our Internet access service are limited and shared among users. The potential for congestion that could adversely affect the performance of our network can arise when a large fraction of our customers are making use of the network at the same time, when a small number of users place an unusually heavy demand on the available bandwidth, or a combination of these and other factors. To deal with this potential problem, we use a number of reasonable network management practices to protect our user base as whole from the impact of activities that can unreasonably burden our network or cause service degradation, including network congestion and attacks

by malicious software. Vyve reserves the right to modify these network management practices in its discretion and in accordance with law.

A. Network Congestion

Vyve does not currently engage in any specific network management practices to address the effects of congestion. For example, it does not block specific applications or traffic that may tend to increase congestion. Instead, it focuses on anticipating and minimizing or avoiding congestion by monitoring network usage and augmenting capacity in a targeted manner. Nevertheless, Vyve recognizes that as Internet traffic volumes continue to grow, it might not be possible to manage network congestion through capacity upgrades alone. As a result, Vyve will continue to evaluate its practices in this respect and will revise its approach as needed in order to continue to deliver a quality online experience.

B. Network Security Measures

Vyve actively seeks to address the threats posed by harmful and unwanted traffic and reserves the right to protect the security and integrity of its network and its customers by any lawful means it deems appropriate. Malicious software (often referred to as “malware”), such as viruses, worms, spyware, and distributed denial of service (“DDoS”) attacks, not only can adversely affect the network, but also can result in harm to customers’ computers and the quality of service they receive, compromise their data, and harm third parties as well. Unwanted communications such as spam can lead to similar problems.

Vyve employs certain practices on a case-by-case and as-needed basis to protect its network and its customers against DDoS attacks. These practices could be triggered if Vyve detects traffic levels that significantly exceed certain baselines. We have not disclosed the applicable thresholds here in order to ensure that these security practices remain effective and cannot be deliberately circumvented. Further, in accordance with common industry practices (and in response to demonstrated harms), Vyve may on occasion and for limited periods of time inhibit certain Internet ports that are commonly misused to harm networks, although this in no way prevents any Vyve customer or broadband Internet access user from accessing lawful Internet content.

Effective July 31, 2015, Vyve no longer provides email service to its customers. All Vyve-hosted email customers have been advised to migrate their email usage to a third-party email provider of their choice.

C. Application Specific Behavior

Vyve does not have any network management practices that are specific to any application. Vyve does not discriminate against or otherwise prevent users of its Internet service from sending and receiving the lawful content of their choice; running lawful applications and using lawful services of their choice; or connecting their choice of legal devices to the service (subject to the discussion above); as long as such applications, services and devices do not harm the network or the provision of broadband Internet access services, facilitate theft of service, or harm other users of the service. Similarly, Vyve does not impair or degrade particular content, applications, services, or non-harmful devices. Vyve reserves the right to employ network management practices to prevent certain harmful or illegal activity, such as the distribution of viruses or other malicious code or the transfer of child pornography or other unlawful content.

D. Device Attachment Rules

Vyve Internet customers have two options regarding attaching devices to our network to make use of our Internet access services: they can lease a modem from Vyve or purchase their own modem at retail. Customers who choose to use equipment that they provide are free to attach any device, including modems, to their service as long as it does not harm the network. Vyve's network uses the DOCSIS technology standard to exchange Internet data with its customers. Vyve currently recommends the use of at least a DOCSIS 3.0 certified modem. Use of a non-compliant modem may lead to service interruption in the case of network updates.

II. PERFORMANCE CHARACTERISTICS

A. Overview of Residential and Small Business Broadband Service Offerings

General

Vyve offers residential and commercial customers their choice of a variety of packages or "tiers" of broadband Internet access service, each of which offers different maximum and average upload and download speeds, features and prices, allowing customers to select an option that is best suited for their online activities. The most appropriate package for a particular customer will depend upon a variety of factors, including the types of applications typically used and the number of users in the household. The features, branding, pricing and other commercial terms of our service offerings are modified from time to time and not all packages are available in all geographic areas. Full descriptions of pricing and features for the tiers of service currently available in your geographic region can be found by entering your zip code on our website at <http://www.vyvebroadband.com> or by contacting a Vyve customer service representative at 1.855.FOR.VYVE.

Data Usage Allowances

All of our Internet access service plans are subject to a monthly data allowance. If you have provided Vyve with an email address, you will receive an email from Vyve if and when you reach 75%, 90% and 100% of your plan's monthly data usage allowance. We also may employ a session interrupt tool to notify you of your data usage from time to time. See <http://www.vyvebroadband.com/home/mydatameter> for more information on the data usage allowance applicable to your service plan and how you can monitor, manage and make the most of your own online data usage. Should you exceed the monthly data allowance applicable to your plan, you will still enjoy the same Internet speed and full access, but will be charged an additional \$10 per month for every additional 50GB of data or portion thereof used. Unused bandwidth from your monthly allotment expires at the end of your billing cycle and does not carry over to subsequent billing cycles. If you find that you are regularly exceeding the data usage allowance applicable to your service plan, please contact a customer service representative at 1.855.FOR.VYVE to discuss alternatives. Our customer service representatives are trained to help customers explore options to reduce data consumption.

Internet Service Technology

All Vyve Internet access services are provided either by hybrid fiber-coaxial, fixed wireless or fiber-to-the-home. The particular technology for your service will be based upon what is available in your geographic area. The equipment required to connect a computer or device to the Internet depends on the type of technology employed to provide the service. Please note that the capabilities and service options that Vyve offers, and the equipment necessary to enjoy them fully, may change in the future. For example, Vyve is in the process of upgrading its network in certain of its markets. Some of these

upgrades may require customers to upgrade their existing cable modems in order to obtain the new, higher Internet speed available to them. When this occurs, Vyve provides targeted communications, in multiple formats, to inform the affected customers about the need to replace their existing modem. Customers who lease their modems will be provided with an upgraded modem at no additional charge.

- **Hybrid Fiber-Coaxial Network**

The majority of our residential and business customers receive our broadband Internet service over our hybrid fiber-coaxial (“HFC”) network using the Data Over Service Interface Specification (DOCSIS). Our HFC network requires connection of a cable modem (or router) to our network. As noted above, we currently recommend the use of at least DOCSIS 3.0 certified modems. To connect from our network to the Internet, equipment called a Cable Modem Termination System (“CMTS”) is used. The CMTS acts as a gateway to the Internet for our customers’ cable modems. Each CMTS has multiple “ports” that handle traffic coming into and leaving the CMTS. In particular, each cable modem deployed on our HFC network is connected to the CMTS via the HFC network through ports on the CMTS. The ports can be either “upstream” or “downstream” ports, depending on whether they send information to cable modems (downstream) or receive information from cable modems (upstream) attached to the port. This is a shared network, which means our customers share upstream and downstream bandwidth.

- **Terrestrial Fixed Wireless**

A very limited number of our customers receive our Internet service through terrestrial fixed wireless broadband. Our terrestrial fixed wireless service uses wireless devices that are situated in fixed locations to establish a point-to-point signal transmission through the air over a terrestrial microwave platform, rather than through copper or fiber cables. Vyve’s terrestrial fixed wireless service requires a directional radio antenna that receives a signal from our tower. The directional antenna is typically mounted on the roof of the customer’s home or office. To connect from our network to the Internet, we connect the directional radio antenna to the customers’ personal computer with our radio acting as the gateway to the Internet. These customers supply their own personal computer and Vyve supplies the radio to enable Internet access. This is a shared network, which means our customers share upstream and downstream bandwidth.

- **Fiber-to-the Home**

Less than forty (40) homes in Cache, Oklahoma receive fiber-to-the-home Internet service over our fiber optical network. To connect from our fiber optical network to the Internet, equipment called an Optical Network Terminal (ONT) is used. The ONT connects via a cable to a customer provided device (e.g., switch, hub, etc.) and acts as a gateway to the Internet for our customers’ personal computer through a cable modem or router. This is a shared network, which means our customers share upstream and downstream bandwidth.

Performance Metrics

One important component of broadband performance is speed. Vyve designs its network with the goal of achieving certain upload and download speeds, although congestion and other factors may make it impossible for Vyve’s network to achieve those speeds at certain times. Vyve also seeks to provide a number of service options with different speed tiers, so that users can select one that is consistent with their desired price, needs and preferences.

Vyve provides modems and engineers its network to maximize our customers' ability to achieve the advertised maximum speed levels for each tier of service. However, Vyve cannot guarantee that a customer will experience those speeds at all times. Like other Internet Service Providers ("ISPs"), Vyve advertises its speeds as "up to" a specific level based on the tier of service to which a customer subscribes.

Speed

The "actual" speed a customer experiences at any particular time may vary based on a number of factors and conditions, many of which are outside of the control of an ISP, such as Vyve. These conditions include, but are not limited to:

- **The performance of a customer's Internet-connected devices** (that is, the customer's cable modem, wireless router(s), computers and other devices used to access the Internet). A device's performance can be affected by many factors, including its age, memory, processing capability, operating system, the number of applications simultaneously running and the presence of any malware or viruses. Often, increasing the amount of memory (RAM) in your Internet-connected device can have a positive effect on how quickly your Internet-connected device can communicate with the Internet. You should make sure you are running the most up-to-date operating system your Internet-connected device can handle (with all available patches installed) to maximize your connection speeds.
- **Type of connection between a customer's computer and modem.** If there is a router between your modem and your Internet-connected device, the connection speed you experience can often depend on the model and configuration of the router. Certain routers are able to pass data to your Internet connected device more quickly than others. For example, wireless routers, depending on your signal strength, may give you significantly slower connection speeds than directly wired routers. Wireless connections also may be subject to greater fluctuations, interference and congestion.
- **The distance packets travel in round trip** between a customer's Internet-connected device and its final destination on the Internet, including the number and quality of the networks of various operators in the transmission path. The Internet is a "network of networks." A customer's connection may traverse the networks of multiple providers before reaching its destination. Both the total number of such networks, as well as the limitations on the performance of each of them, will likely affect the overall speed of the customer's end-to-end Internet connection.
- **Congestion or high usage levels at the website or destination.** If a large number of visitors are accessing a site or particular destination at the same time, the speed with which your information downloads or uploads will be affected if the site or destination does not have sufficient capacity to serve all of the visitors efficiently at the same time.
- **Gating of speeds or access by the website or destination.** In order to control traffic or performance, many websites limit the speeds at which a visitor can download from their site. Those limitations will carry through to a customer's connection.
- **The suitability of the cable modem.** Some modems may not be capable of handling higher speeds. Please note that where a modem upgrade is necessary to enjoy available speeds and a customer has not yet completed that upgrade, the customer's experienced speed may be limited by the technical capabilities of that older device.

- **Congestion on Vyve's network.** As noted above, the data-carrying capacity on Vyve's network is shared among many users. If a large fraction of users on a given portion of our network is attempting to upload or download information at the same time, or if a smaller number of users is making intensive use of the network, such activity can affect the data transfer speed experienced by our users. The number of users in a household at a particular moment can also affect the speed experienced by such household members.

In addition to the variables described above, customers' Internet speed will depend on the service level to which they subscribe. As noted above, Vyve offers different tiers of broadband Internet access services with varying targeted upload and download speeds across its footprint. Vyve encourages all of our customers to consider the capabilities of their equipment when deciding which tier of service to purchase. It may be that a customer will need to upgrade the computers and wireless or other networks on their own premises to take full advantage of the transmission speeds that Vyve's network can provide.

Finally, customers' Internet speed will also depend on the geographic location of their household. Vyve acquired a large portion of its network from third parties. Many of the systems acquired from third parties were distressed and in need of significant repair and upgrade. Vyve has been assessing and evaluating performance results in these acquired markets and, upon recent completion of our assessment, we identified certain isolated markets where our customers in some tiers of service may be experiencing slower than expected speeds. A complete list of the "markets to be upgraded" is available at <http://www.vyvebroadband.com/marketstobeupgraded>. As of July 1, 2015, customers in these distressed markets are currently receiving a monthly \$8 "network loyalty discount" on Internet access service until the necessary upgrades are complete. Vyve thanks our customers in the markets still requiring upgrades for your patience and loyalty as we continue to make the repairs and upgrades necessary to deliver the Internet speeds you need.

The foregoing factors are the reason Vyve, like other ISPs, advertises speeds as "up to" a particular level and does not guarantee them.

Latency

Latency is another measurement of Internet performance. Latency refers to the average time it takes for a packet of data to travel from one designated point to another on a network. Since many communication protocols depend upon an acknowledgement from one end of a connection that packets were received successfully, or otherwise involve transmission of data packets back and forth along a path in the network, latency is often measured by round-trip time. Some applications are particularly sensitive to latency, such as some high-definition multiplayer online games. Latency is typically measured in milliseconds. Within a wide range, as a practical matter, latency generally has no significant impact on typical everyday Internet usage. Latency varies based on any number of factors, notably the distance (and number of intermediate routers) between a customer's computer and the ultimate Internet destination with which the customer is interacting (as well as the number, variety, and quality of networks the customer's packets cross). For this reason, it is not possible to provide a single figure that will define latency as part of a user experience.

Packet Loss

Packet loss is defined as the percentage of packets that are sent by the source but not received by the destination. Congestion along the path of packets traversing networks is the most common reason for packets not being received. Like latency, however, packet loss varies based on a number of factors and it is not possible to provide customers with a single figure that will define packet loss as part of a user

experience. A packet is counted as lost by the FCC if latency exceeds 3 seconds or is never received. In general, Vyve engineers its network toward a goal of zero packet loss. Users should experience minimal, if any, packet loss at any given time. In the unlikely event that packet loss materially affects a customer's service, Vyve will treat complaints as a service impairment and will attempt to remedy the situation.

Actual Performance

The FCC's rules require that Vyve disclose information regarding the expected and actual upstream and downstream speeds, latency and packet loss of our broadband Internet access services. There are a number of publicly available sources of information regarding actual broadband performance, each of which uses a different methodology and thus may produce different results. Please note, however, that all performance tests are based on certain assumptions and therefore have certain inevitable biases and flaws. The results of such tests therefore should be considered a guide rather than a definitive measurement of performance. Also, customers should keep in mind that a speed a customer experiences at a specific location may vary from the average speed calculated on a Company-wide basis. In addition, these tests are dependent on a variety of factors, including the customer's home network configuration, modem and Internet-connected devices and the time of day, and therefore do not reflect the performance of the Vyve network only. Although we do not believe third party tests reliably measure the speed of your service, if you are consistently testing below your packaged speed, and are not in a distressed market as noted above, please contact us for assistance.

Vyve Internet customers can check the speed and latency for their current Internet connection using Vyve's online speed test at <http://www.speedtest.vyvebroadband.com>, which tests the speed and latency that they are receiving on Vyve's network.

Customers may also test service speeds that they are receiving on Vyve's network by using the free commercial speed test available online at <http://www.speedtest.net>.

In addition, the FCC has compiled network performance speed tests of various ISPs, which include comparisons of actual speeds to advertised speeds. Except for our markets to be upgraded, and absent any of the factors listed above, actual performance of Vyve's Internet service will conform in most cases to the national wireline broadband Internet speed, latency and packet loss levels reported by the FCC. See: <https://www.fcc.gov/general/measuring-broadband-america> for most recent FCC reports on the average upload and download speeds, latency and packet loss, based on tests performed by a number of ISPs.

The table below shows Vyve's advertised maximum upstream and downstream speeds as compared to the average actual upstream and downstream speeds, as well as Vyve's average latency during busy and non-busy times, for our upgraded markets. The majority of Vyve's customers subscribe to one of the marketed service tiers listed below. Performance data reflected below was collected by Vyve during busy and non-busy times and over a 24-hour period, based on local time, for each of the Internet service levels reflected on the table below and is reflected as an average result. The FCC has defined peak hours measured during the "busy hour" as weeknights between 7pm and 11pm local time. The results reflected on the tables below can be expected to be illustrative of what the majority of users in our markets would experience on average. However, the results do not reflect the performance levels to be expected by any individual customer served by any particular Vyve system at any particular time, and do not reflect results for customers in other service tiers. Nevertheless, we believe that the results below are illustrative of what users can expect in other tiers of service (except for customers in our markets to be upgraded available at <http://www.vyvebroadband.com/marketstobeupgraded>).

Performance Characteristics – Downstream		
Provisioned Speed (Mbps)	Average Actual During Busy Times	Average Actual Over Non-Busy Times
25	27,897	28,492
50	53,586	53,544
105	115,734	116,407
Performance Characteristics – Upstream		
Provisioned Speed (Mbps)	Average Actual During Busy Times	Average Actual Over Non-Busy Times
3	2,945	3,262
5	4,718	5,705
10	9,088	10,958
Performance Characteristics – Latency (in milliseconds)		
Service Tier	Average Latency (busy times)	Average Latency (non-busy times)
25	27	27
50	27	27
105	27	25

B. Description and Impact of Specialized Services

Vyve has built its overall physical network to support a range of quality services, including, but not limited to, its residential and small business broadband Internet access services, its cable television services and its voice telephone services. The performance of such a shared network will turn on how much aggregate bandwidth is being used by all users and all services at a given time.

The FCC’s rules require us to discuss services that share bandwidth with broadband Internet access services, but that do not necessarily include broadband Internet access capability or are not primarily intended for that purpose. We refer to these non-Internet access services here as “specialized services.” Vyve provides certain cable services over its cable systems in IP format (such as Watch TV Everywhere) that may fall within that category. In addition, Vyve offers Voice-over-IP (“VoIP”) services and residential and business voice service offerings. These VoIP services share network capacity with data use. In order to accommodate the technical requirements of VoIP service, Vyve gives VoIP traffic priority in its network over general data traffic. However, because VoIP services use relatively little bandwidth, Vyve expects that its VoIP services will not affect the performance of Vyve’s data service.

As noted above, Vyve currently deals with potential network congestion by routinely monitoring how all of its services use bandwidth to minimize any impact on our broadband Internet access service. Accordingly, although all services are affected at any given time by the total usage of all services, Vyve's provision of specialized services does not adversely affect its provision of broadband Internet access services. As Vyve develops other Internet protocol services, Vyve intends to manage them so that they should have no discernible effect on your Internet services.

III. COMMERCIAL TERMS

A. Pricing

As noted above, Vyve has acquired a large portion of its network from third parties. Each of the acquired markets has a set of legacy service offerings, often different from each other. Vyve is in the process of standardizing its service offerings over its various markets. In each market, however, Vyve currently offers multiple tiers of broadband Internet access service, each at a flat monthly rate and without long-term contracts or early termination fees.

Vyve's prices for residential broadband Internet access services vary by region, are subject to change over time, may be based on current promotions and are dependent on a customer's particular needs. The chart below shows regular rate card rates for the plans to which the majority of our customers in our upgraded markets (except for Ft. Riley, Kansas) currently subscribe, as well as the promotional rates applicable to such service tiers currently in effect.

Service Tier/Data Usage	Regular Rate Card Rate Now in Effect	Promotional Rate Now in Effect
25 Mbps/1 TB	\$69.99/month	\$25.00/month
50 Mbps/1 TB	\$89.99/month	\$39.99/month
105 Mbps/1 TB	\$109.99/month	\$89.99/month

In certain regions, in addition to our standard plans, we offer thirty-day pre-paid plans for our broadband Internet access service up to 10 Mbps with a data allowance of 500 GB. If you subscribe to this plan, your Internet service will remain active for thirty days or until you reach 500 GB of data, whichever comes first.

All rates are subject to change and certain restrictions. The rates disclosed above are not inclusive of additional monthly fees for other services, such as voice and/or cable, or other recurring or one-time fees, which may include service charges, equipment charges, late fees, regulatory fees and Federal, state and local taxes. Once a current promotion ends, regular rate card charges for the service will apply. All tiers of Internet service are subject to monthly data usage allowances. See Section II.A of this Network Management Disclosure for information regarding additional usage-based fees which may apply.

Current subscribers can find pricing information concerning their services on their monthly bill or by contacting a customer service representative. Prospective customers can obtain full descriptions of pricing and features for the tiers of broadband Internet access service currently available in their geographic regions by entering their zip code on our website at <http://www.vyvebroadband.com> or may obtain pricing information by contacting a Vyve sales representative at 1.855.FOR.VYVE.

B. Privacy Policy

Vyve values the privacy of our Internet service customers and follows procedures to ensure that information we collect is reasonably protected. As indicated above, in order to manage our network performance, ensure that our network runs smoothly and deny malicious traffic to make our network safer, Vyve inspects and analyzes network traffic on our system. In connection with this analysis, Vyve stores certain traffic information (such as the identity of a customer using a particular IP address during a specific period) for time periods required by state or federal law. Vyve may provide some of this data to a third-party messaging system installed on Vyve's network solely for operational purposes and monitoring Vyve's network. We do not collect, store or use traffic information to profile our customers in order to sell additional services to them or for similar non-network management purposes. Personal information you provide to Vyve is governed by Vyve's Customer Privacy Notice, which is available at <http://www.vyvebroadband.com/policies> and is subject to change from time to time.

C. Redress Options

For questions, complaints or requests for additional information about Vyve's broadband Internet access services or regarding any of the information set forth above, please contact a customer service representative at 1.855.FOR.VYVE or visit <http://www.vyvebroadband.com> and click on "Contact Vyve" tab for information on a variety of ways to get assistance.

The FCC has established procedure for addressing informal and formal complaints regarding broadband service. For information concerning these formal and informal complaint procedures, please refer to the FCC's website at <http://www.fcc.gov/guides/getting-broadband>.