1Q25 Report

A Boom in Business and a Peek at Peaks

OpenVault Broadband Insights

Introduction

“Peak Day” business services broadband consumption has more than doubled in both the upstream and the downstream as workplace environments have reopened after the pandemic, according to the latest edition of the OpenVault Broadband Insights (OVBI) report.

According to OpenVault’s analysis of data collected by the company’s software-as-a-service (SaaS) network management and monitoring solutions, peak day usage by business subscribers has risen 102.6% in the upstream and 105% in the downstream, respectively, since the end of 2021.

During 1Q25 upstream business services traffic rose 26.3%, contributing to an overall upstream growth rate of 17.6% when compared to Q1 2024, the highest Q1 rate of increase since 2021. Total usage grew at a 9.5% year-over-year rate in Q1, reversing a four-year decline in the pace of Q1 growth.

The 1Q25 edition of OVBI also breaks new ground by providing the industry with an in-depth look at the frequency at which subscribers move between usage levels from month to month. Using data from past 24 months, OpenVault’s analysis can help providers sharpen their capacity and right-sizing initiatives.

As with every OVBI edition, this report draws on data from millions of broadband subscribers, aggregated via OpenVault’s SaaS solutions to identify usage patterns that impact network performance, operator revenue, and customer satisfaction.

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Key findings from the 1Q25 OVBI include:

Usage

The monthly average data consumed by subscribers in 1Q25 was 663.2GB, up 9.5% from 1Q24; the highest YoY growth for Q1 since 2022.

Super Power Users

The percentage of subscribers consuming >2 TB per month has increased from only 0.16% in 2018 to 4.88% in 1Q25 – a roughly 30x increase over seven years.

Speed Tiers

Average downstream speed was 564Mbps, an increase of 12.1% from 1Q2024. Average upstream speed was 34Mbps, up 13.7% from 1Q2024.

Extreme Power Users

The percentage of subscribers consuming more than 5TB per month increased over 37% YoY in 1Q25, reaching 0.16%.

Key Bandwidth Usage Insight

Monthly average upstream usage grew 17.6% from 1Q2024, to 47.5GB. This represents the highest Q1 YoY growth since 2021.

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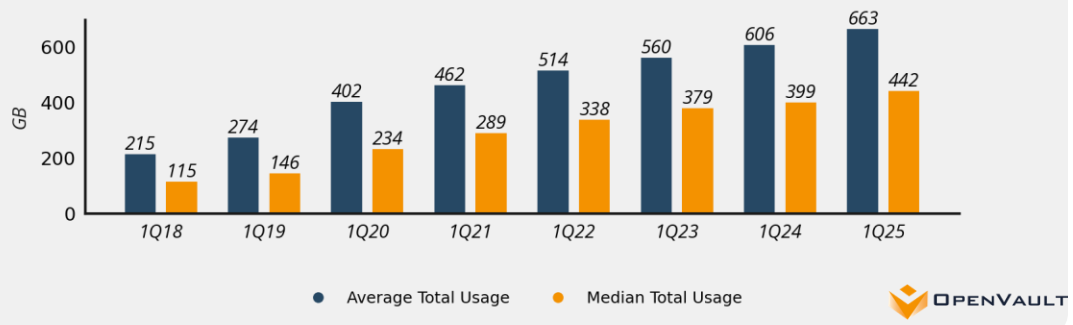
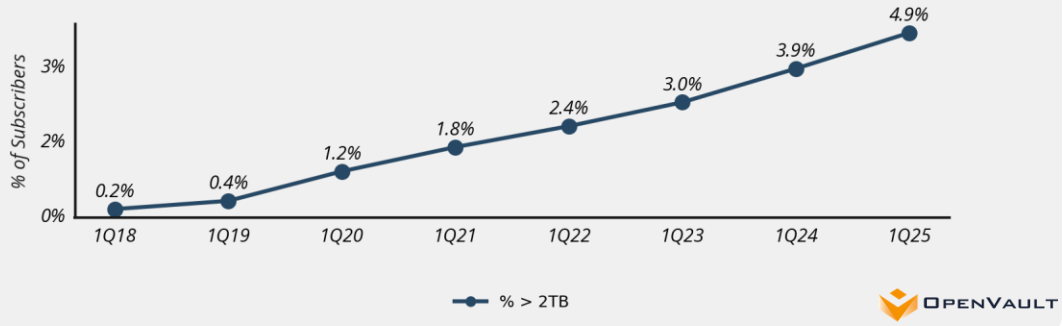
Broadband Data Consumption Trends 1Q25

FIGURE 1

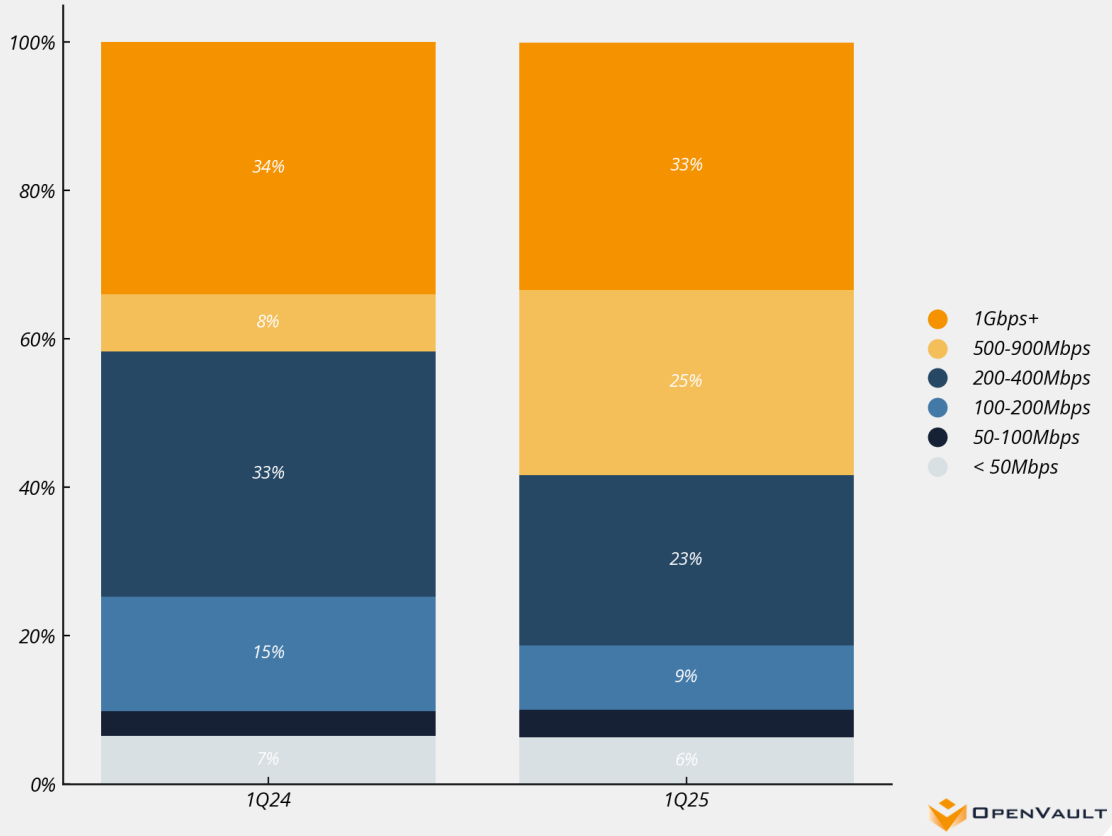
Average and Median Total Usage



Super Power User Growth



Provisioned Broadband Speed Tier Distribution



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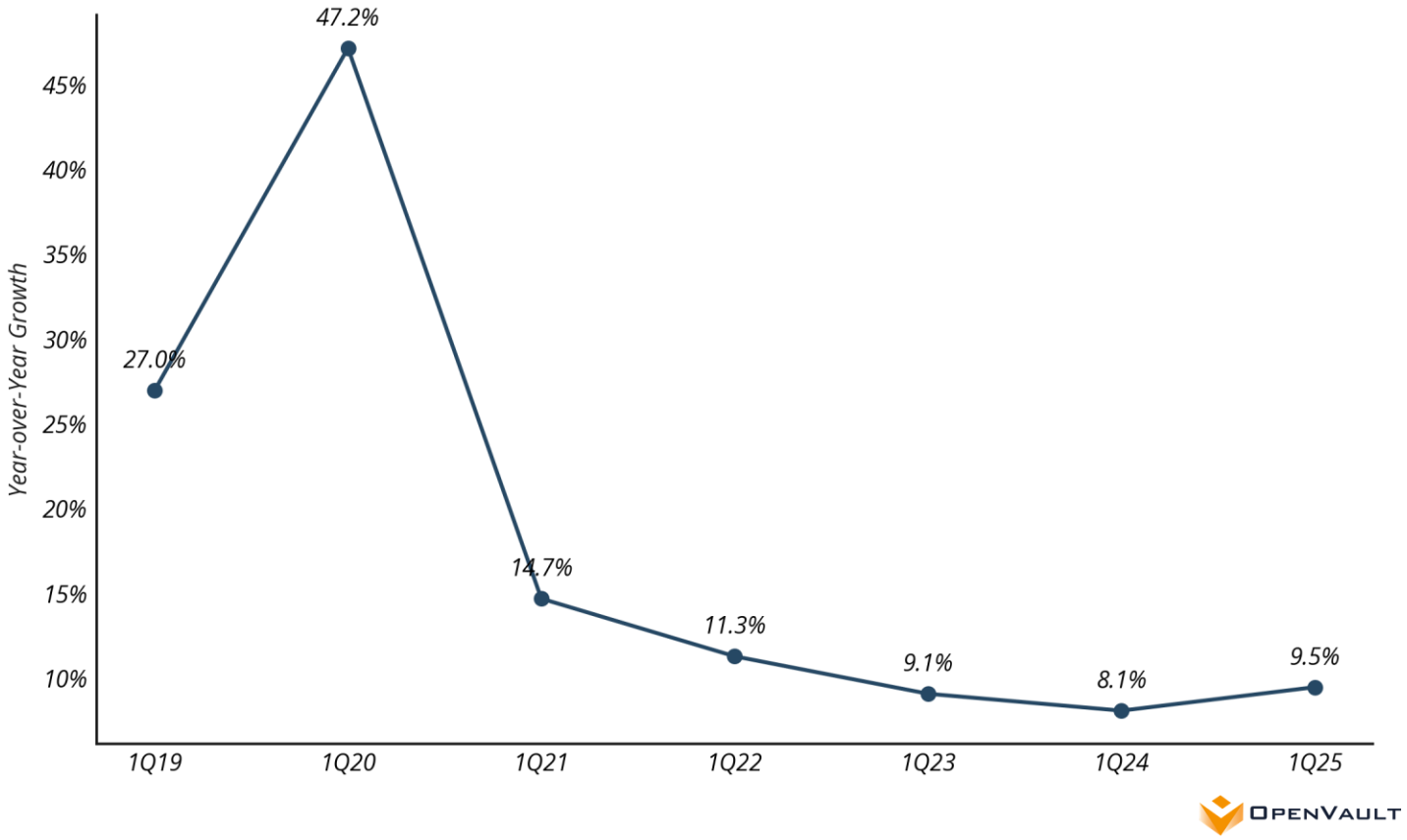
New Upward Movement in Usage Growth

FIGURE 2

Q1 Year-Over-Year Average Usage Growth



- After growing by nearly 50% during the pandemic year of 2020, the rate of growth for average daily consumption declined steadily in the ensuing years
- Q1 2025 was notable in that average total usage not only rebounded but also accelerated; the **9.5%** rate of growth in total usage was the **fastest** rate of increase since 2022

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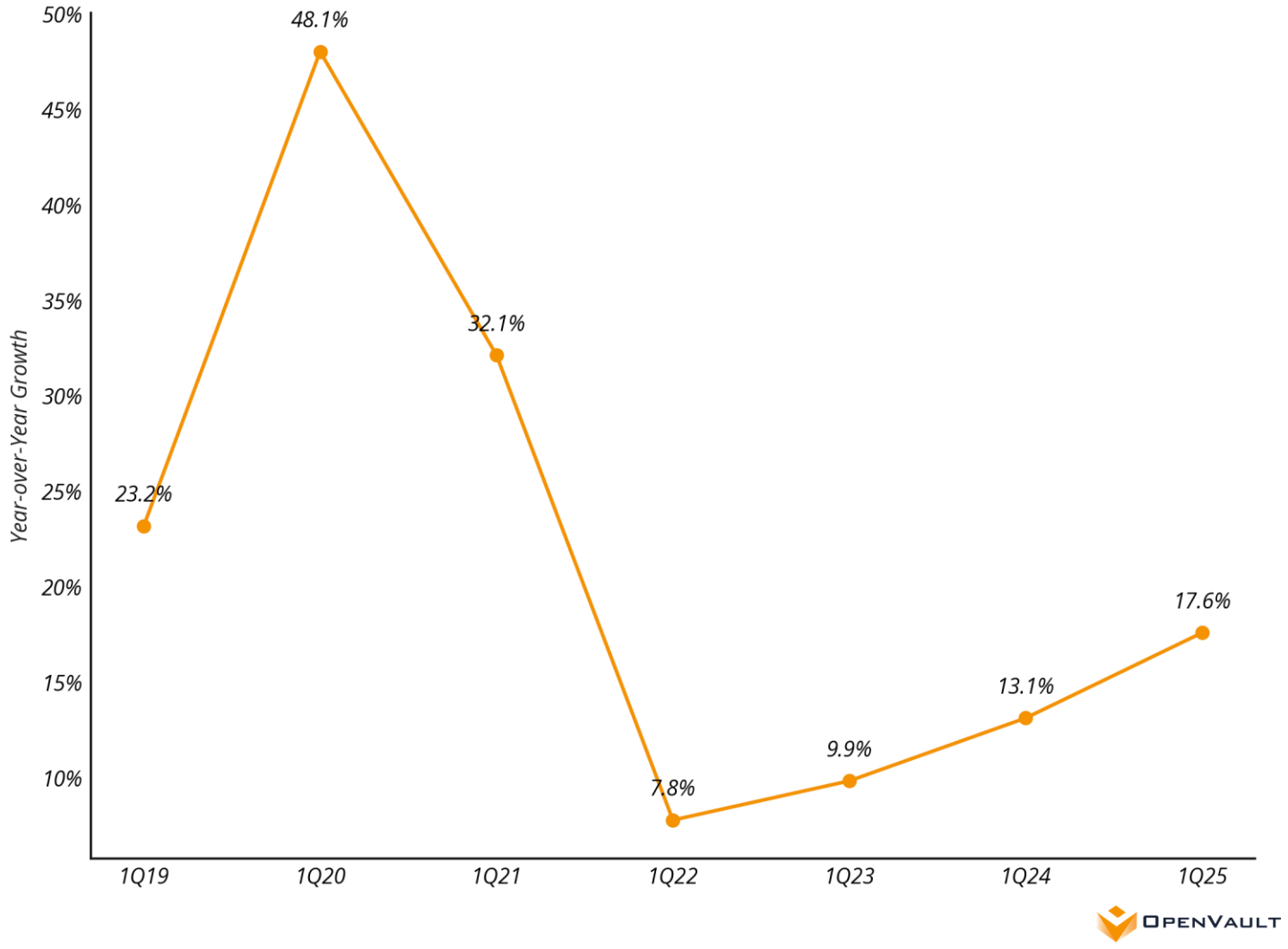
FIGURE3

Q1 Year-Over-Year Average Upstream Usage Growth



- Upstream consumption growth rates have outpaced downstream for several consecutive quarters as video calls, cloud backups, IoT uplinks, etc. are becoming more significant in the subscriber mix
- The average upstream data consumed per subscriber jumped from 40.4 GB in Q1 2024 to 47.5 GB in Q1 2025, a **17.6%** YoY increase, the highest Q1 upstream growth rate since 2021, when pandemic-driven usage peaked
- Although downstream usage growth rebounded from three years of declining growth rates, the increase in the downstream was more modest when compared to the upstream – growing 8.9% YoY, to 616.2 GB

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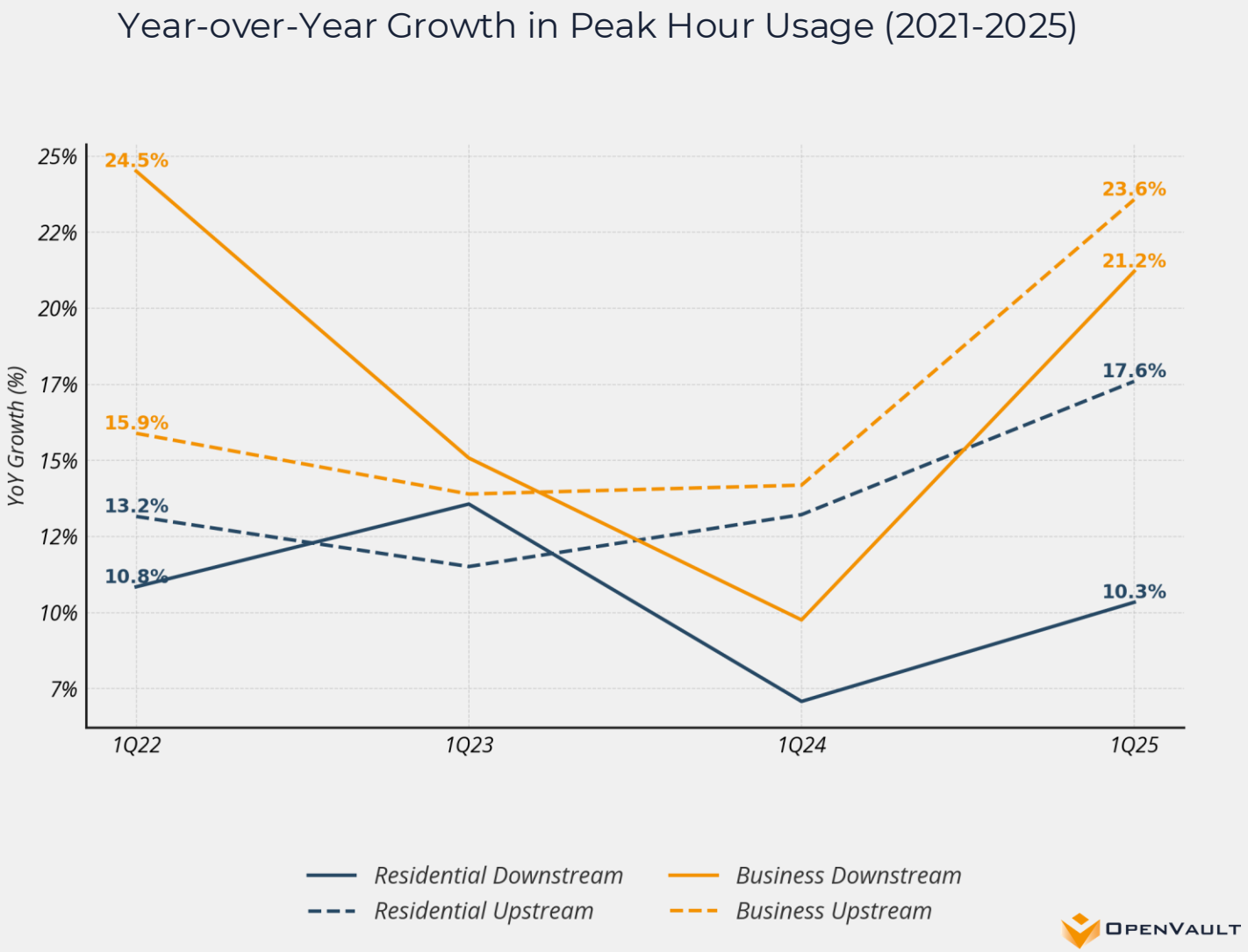
Peak Usage: Business vs. Residential

OpenVault's latest analysis of business and residential traffic offers sharper insight into how usage profiles vary across these sectors. This OVBI edition explores peak usage trends by year, day, and by hour and includes a deep dive into March 2025 consumption to help the industry better understand:

- What are the busiest days for upstream/downstream usage for both customer types?
- How does upstream/downstream growth for those busiest days compare across both customer categories?
- What hours of the day see the heaviest usage for business vs. residential customers?
- How can providers understand differing growth patterns so they can anticipate spikes, particularly in upstream traffic?

FIGURE 4



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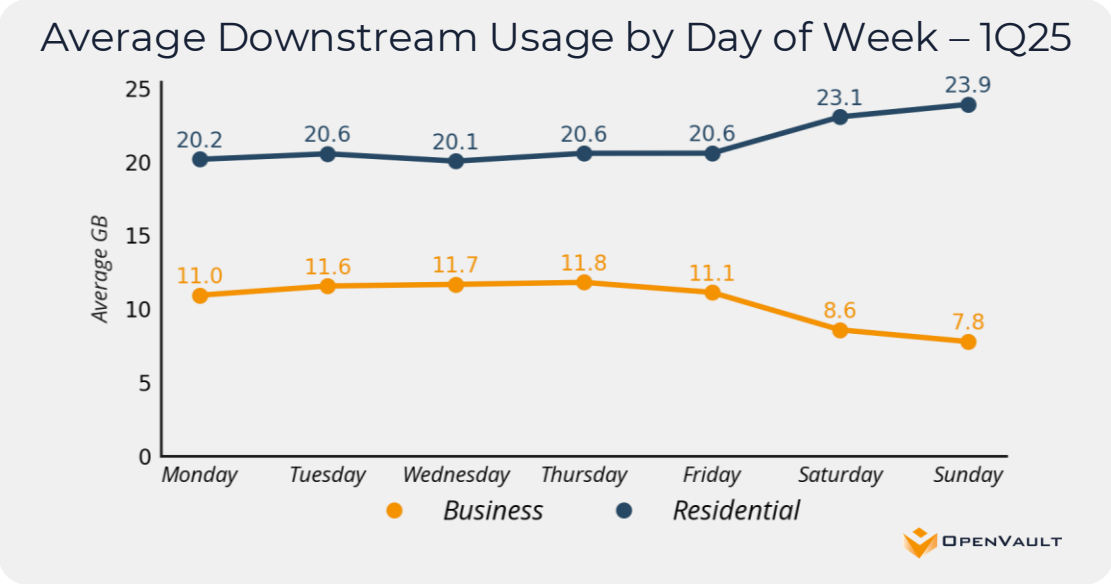
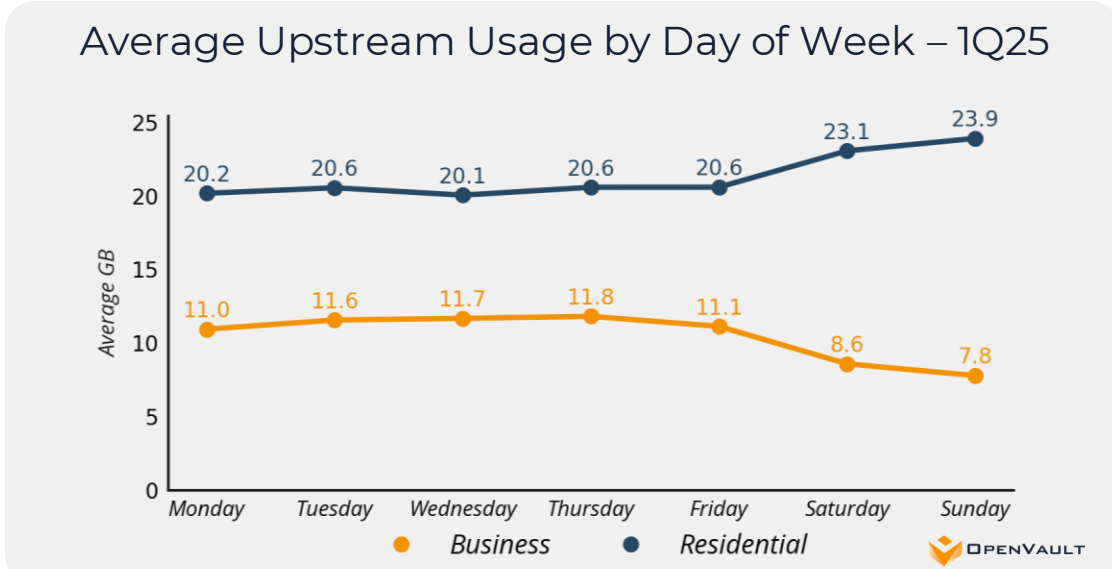
Peak Daily Usage: Business vs. Residential

FIGURE 5





Business

- Peak daily upstream usage for business customers increased by 26.3% from 1Q24 to 1Q25, resulting in a total growth of 102.6% since 2021. The CAGR over this period was 19.3%.
- Downstream usage grew by 20.8% YoY and increased 105.0% overall since 2021, with a CAGR of 19.7%.

Residential

- Among residential customers, peak upstream usage grew by 21.4% over the past year, representing 75.8% total growth from 2021 to 2025 and a 15.1% CAGR.
- Peak downstream usage saw 13.6% YoY growth, 59.0% total growth, and a 12.3% CAGR over four years.

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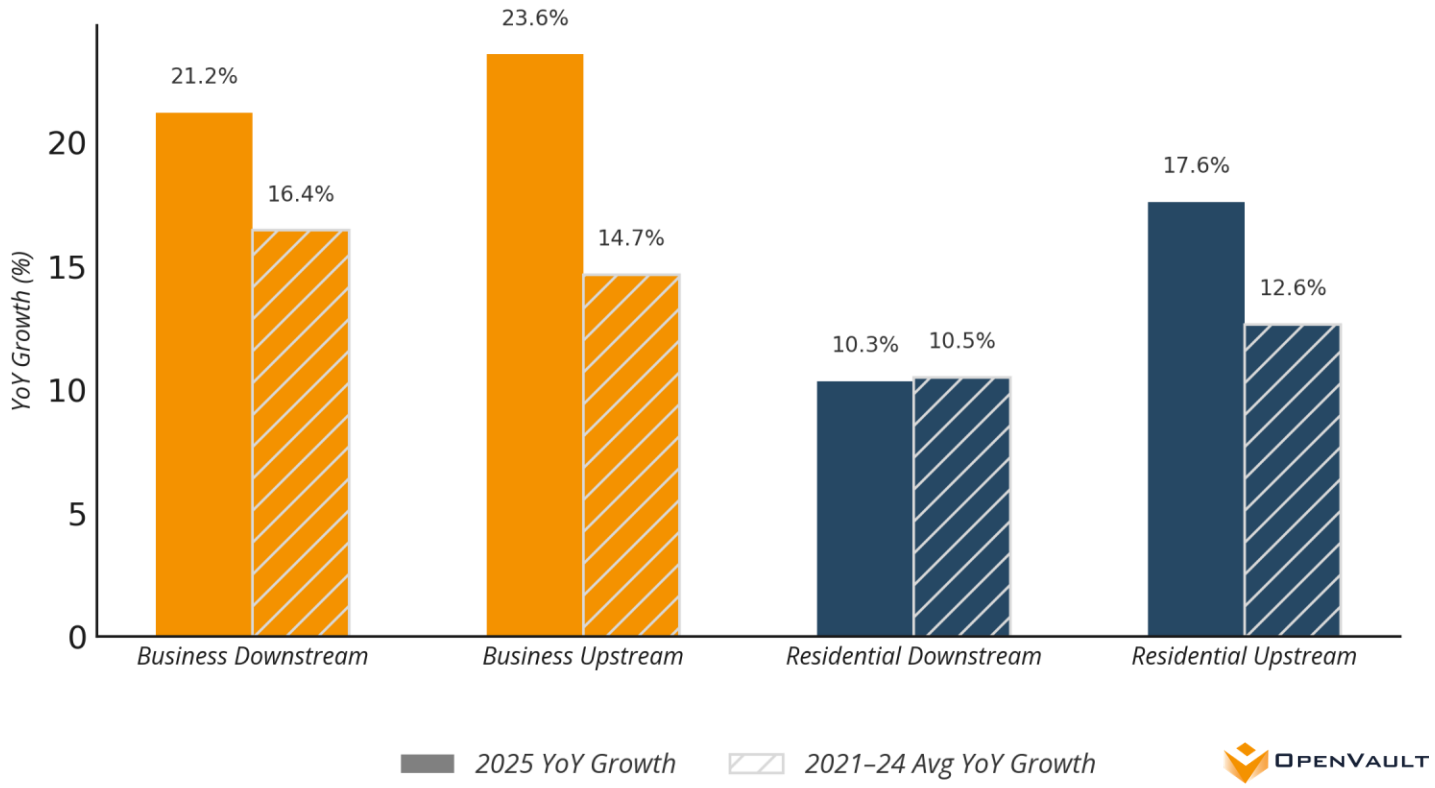
Peak Hour Usage: Business vs. Residential

FIGURE 6 Q1 Peak Hour Usage Growth – Business vs. Residential



In addition to day-of-week patterns, peak hour usage (defined as the hour with the highest average per-subscriber usage during the month) continued to show clear differences between business and residential users. Business traffic spiked during daytime hours, while residential usage peaked in the evening. Year-over-year growth in peak usage also showed a sharper acceleration in business traffic, especially upstream.

The 2025 data shows that business peak hour usage growth is accelerating, especially in the upstream where growth surged to +23.6%, well above the prior three-year average of +14.7%. In contrast, residential downstream growth has stabilized, with 2025's +10.3% rate nearly identical to the average of recent years, indicating a maturing usage pattern in the residential segment. Overall, business subscribers saw stronger YoY growth in both upstream and downstream peak usage.
Key Findings (Figure 6):

- Business downstream: +21.2% in 2025 vs +16.4% average growth → accelerating
- Business upstream: +23.6% in 2025 vs +14.7% average growth → strong acceleration
- Residential downstream: +10.3% in 2025 vs +10.5% average growth → stable
- Residential upstream: +17.6% in 2025 vs +12.6% average growth → moderate acceleration

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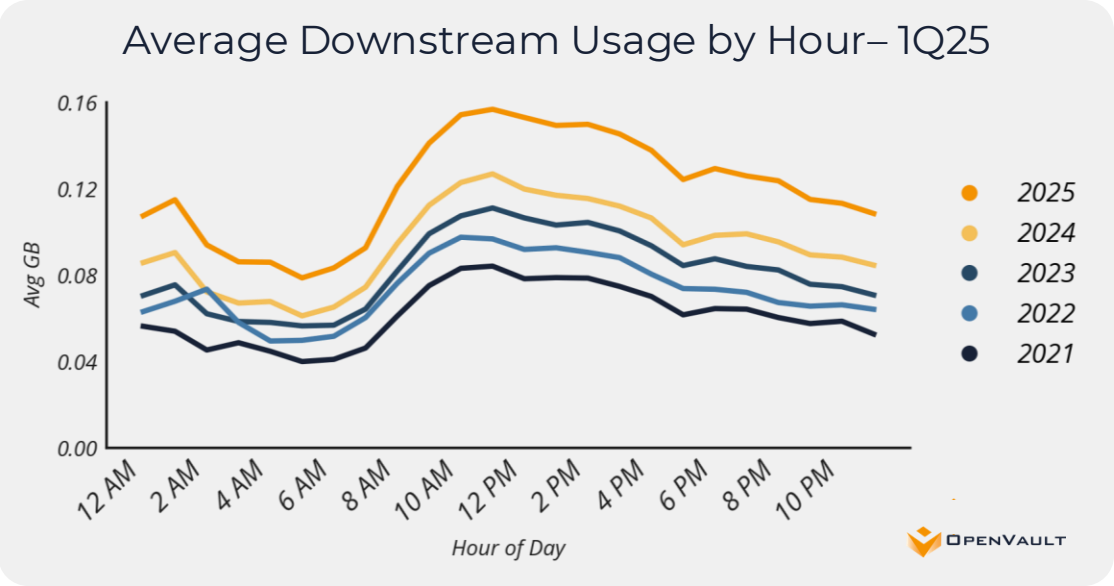
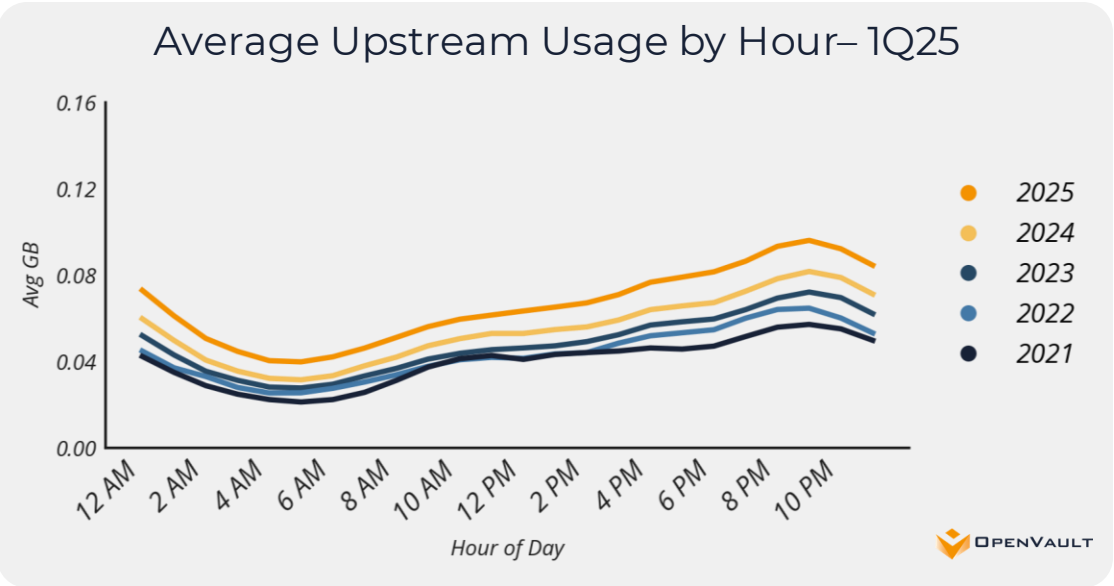
Peak Hour Usage: Business vs. Residential

FIGURE 7





Business

- Business upstream peak hour usage for 1Q25 occurred at 11 AM, peaking at 0.157 GB/hour, reflecting a 23.6% YoY increase.
- Business downstream peak hour usage occurred at 1 PM, reaching 0.657 GB/hour, a 21.2% YoY increase from 1Q24.

Residential

- Residential upstream peak hour usage for 1Q25 occurred at 9 PM, reaching 0.096 GB/hour, a 17.6% YoY increase.
- Residential downstream peak usage was also recorded at 9 PM, with average usage of 1.544 GB/hour, representing a 10.3% YoY increase.

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Business vs. Residential Usage Patterns

Peak Usage Growth

Business broadband peak day usage has grown significantly, with upstream increasing 102.6% and downstream 105% since 2021. Residential peak usage also grew but at a slower rate: upstream by 75.8% and downstream by 59.0% since 2021.

Peak Day Differences

Residential peak usage for both upstream and downstream occurs on Sundays. In contrast, business peak upstream usage occurs on Wednesdays and peak downstream on Thursdays, reflecting heavier mid-week activity.

Hourly Usage Trends

Business traffic peaks during daytime hours (downstream at 1 PM and upstream at 11 AM) with significant YoY growth (+21.2% downstream, +23.6% upstream). Residential usage peaks in the evening around 9 PM for both downstream and upstream, with YoY increases of +10.3% and +17.6% respectively.

Operational Implications

Understanding these temporal usage differences is critical for network design and traffic engineering. Operators can segment business and residential traffic to prevent congestion, using proactive tools like PMA and PNM to optimize performance during distinct peak periods.

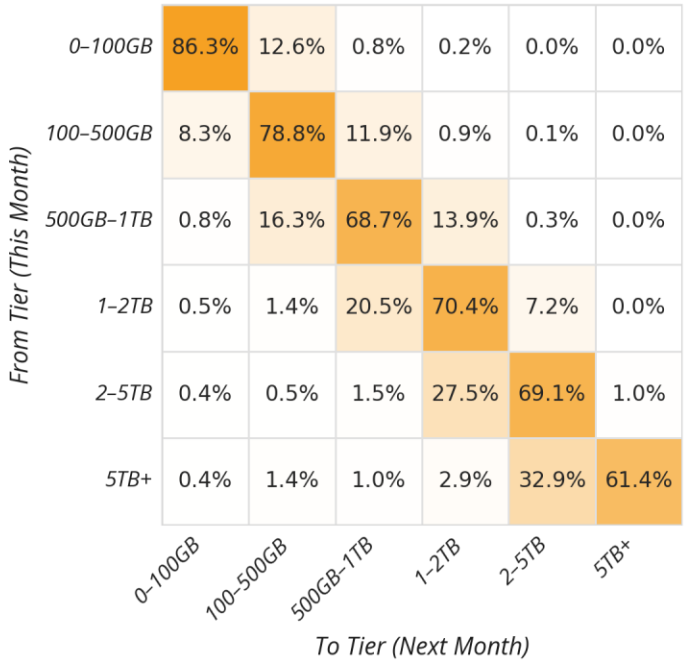
Usage Tier Volatility

OpenVault has historically tracked shifts in usage tiers as subscribers migrate toward higher consumption levels. While overall trends are valuable, providers gain deeper insight by understanding how often subscribers move between tiers each month.

The following analysis examines monthly tier movement over the past 24 months (March 2023–March 2025).

FIGURE 8

Usage Tier Volatility Matrix (1Q23 – 1Q25)



- Each data point in Figure 8 represents the percentage of subscribers in a usage tier that either remained in the same tier or moved to another.
- 86% of subscribers in the 0-100 GB usage tier remain from month to month. These light users have the lowest amount of volatility.
- Conversely, there is higher volatility in the power, super power, and extreme power user tiers. Only 61% of subscribers in the 5 TB+ tier stayed in that tier the next month, with 33% dropping to the 2-5 TB tier, and only 2.8% moving to a tier lower than 1 TB.
- The 500 GB-1 TB tier shows the greatest upward or downward movement with 16.3% dropping down a level and 13.9% moving up. Perhaps this tier is more sensitive to outside factors, such as bingeing a new tv show or a major sports event. Such subscribers could be responsive to higher tier upgrade promotions.

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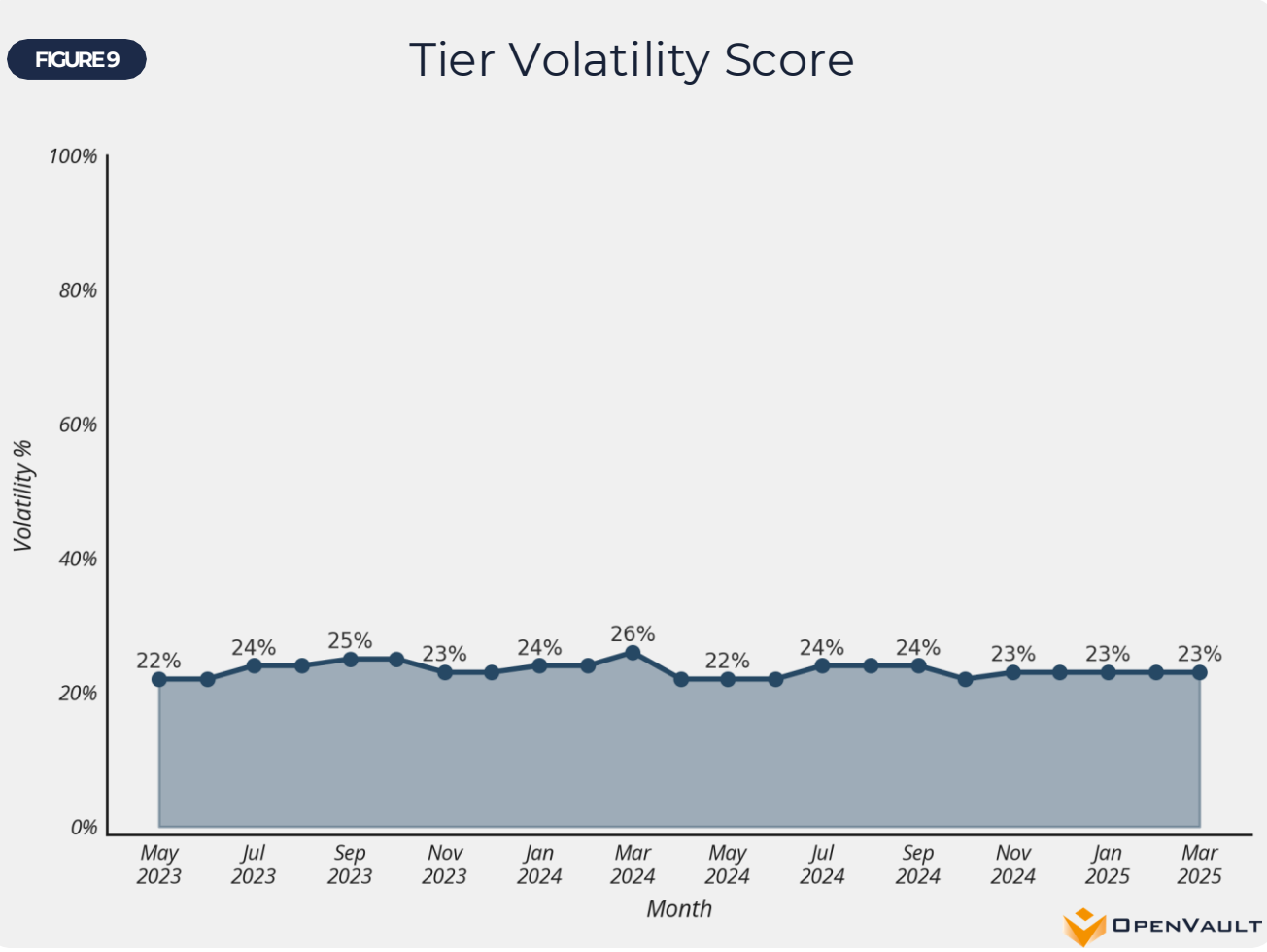
Tier Volatility Score

FIGURE 9



- Utilizing the data from the Tier Volatility Matrix (Figure 8), we can generate a subscriber-weighted Tier Volatility Score (Figure 9) that reflects the average percentage of subscribers that moved out of their previous usage tier in the given month.
- For example, 23.4% of subscribers changed usage tiers between February and March 2025.
- **Why This Matters:** Understanding this Tier Volatility Score helps broadband providers plan sufficient headroom to accommodate such shifts. Under-provisioning for the 23% of subscribers moving between usage tiers can cause congestion and degrade service quality.

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Industry Observations

Below are recent milestones or data equivalences that put the observations noted in this 1Q24 OVBI report into perspective.

21+ Hours

Average weekly time individuals spend streaming

Source: Forbes

99%

US Households paying for at least one streaming service

Source: Forbes

3.26 Billion

Number of global video game players

Source: Truelist

115 Million

Expected number of households owning a Smart TV in 2024

Source: Statista

1.2 Billion

WWE Wrestlemania live minutes streamed on Peacock across 2 days

Source: NBC

18.9 Million

Viewers that watched the NCAA Women's Basketball National Championship

Source: Nielsen

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OpenVault's Average Broadband Household Index — 1Q25

A snapshot of the average U.S. broadband household.

663.2 GB
Average Bandwidth Usage

615.7 GB
Average Downstream Usage

47.5 GB
Average Upstream Usage

564 Mbps
Average Downstream Speed

34 Mbps
Average Upstream Speed

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Conclusion

The return of American business to workplace environments over the past several years has increased the need for broadband providers to understand and plan for new consumption patterns. With upstream and downstream business traffic both having doubled on “peak days” – the busiest internet days of the week – in just over three years, providers need to ensure that their broadband infrastructures can accommodate record spikes in usage.

Of particular note is the upstream: providers saw a **26.3% increase** in upstream business services traffic in 1Q25, well above the 14.7% average growth over the previous three years. Moreover, upstream consumption experienced an overall growth rate of **17.6%, the highest year-over-year Q1 rise since 2021**. Providers should be aware of an uptick in downstream growth during Q1, following several years of declining post-pandemic growth rates. New analysis also reveals that subscriber usage is more dynamic than previously assumed. In fact, OpenVault data shows that **nearly 25% of households shift their usage profiles** from month to month, highlighting the need for flexible and responsive network planning.

These trends, together with a **sharp rise in the ranks of super power users** of 2 TB or more per month, are creating an unpredictable environment for broadband providers. Whether it’s peak usage spikes, sudden migration to higher consumption patterns, or the emergence of marquee streaming events that will tax broadband capacity, providers can be prepared for these challenges by **proactively managing networks and optimizing capacity using PNM and PMA technologies**.

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Solutions from OpenVault that address the issues uncovered in this report:

OpenVault's Modular Solution Suite

Automated Actions to Improve Broadband Network Performance

VANTAGE

Broadband's **Only** Ready-to-Deploy and Integrated
PNM, PMA & Congestion Management Solution

AI-Powered • Vendor-Agnostic • Closed-Loop • Alarming Functionality

50%+ REDUCTION IN TRUCK ROLLS

40%+ REDUCTION IN CALLS TO CUSTOMER CARE

OV PNM

UP TO **40%** IN CAPACITY GAINS

OV Advanced PMA™

SAVE **CAPEX** BY AVOIDING NODE SPLITS

CONGESTION MANAGER

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VANTAGE

OpenVault's Modular Solution Suite

OV Advanced PMA™

An automated, vendor-agnostic tool that dynamically creates bandwidth by analyzing data from every cable modem and CMTS to optimize profile sets and unlock usable capacity without extra capital spending.

OV PNM

Detects and locates RF impairments swiftly, improving Quality of Experience and reducing operational costs with tools like the Upstream Triggered Spectrum Capture Analyzer (UTSC), service assurance, and field force management.

Together, PMA and PNM enable proactive impairment identification, optimal bandwidth allocation, and timely repair scheduling, enhancing overall network performance and customer satisfaction.

OV Congestion Manager

Congestion Manager quickly identifies heavy utilization, isolates and adjusts bandwidth for heavy users, and ensures balanced Quality of Experience (QoE) across the network. This enables operators to maintain optimal performance even during peak usage.

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About OpenVault

Market Leader in Broadband Analytics

OpenVault is a market-leading source of broadband technology solutions and data-driven insights into worldwide broadband consumption patterns. Their cloud-based SaaS solutions help service providers optimize network performance, increase revenue, and improve subscriber satisfaction.

Actionable Data Intelligence

OpenVault aggregates and analyzes broadband usage data to provide granular views of consumer behavior, enabling providers to anticipate broadband trends and make smarter, faster decisions. Their solutions drive actionable automation without costly infrastructure upgrades.

Contact Us

For more information, visit OpenVault.com or contact sales@openvault.com. Phone: 201-677-8480. Address: 111 Town Square Place, Suite 1180, Jersey City, NJ 07310. Discover how OpenVault's solutions can optimize your broadband network and enhance subscriber QoE.

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Unlocking the potential of broadband

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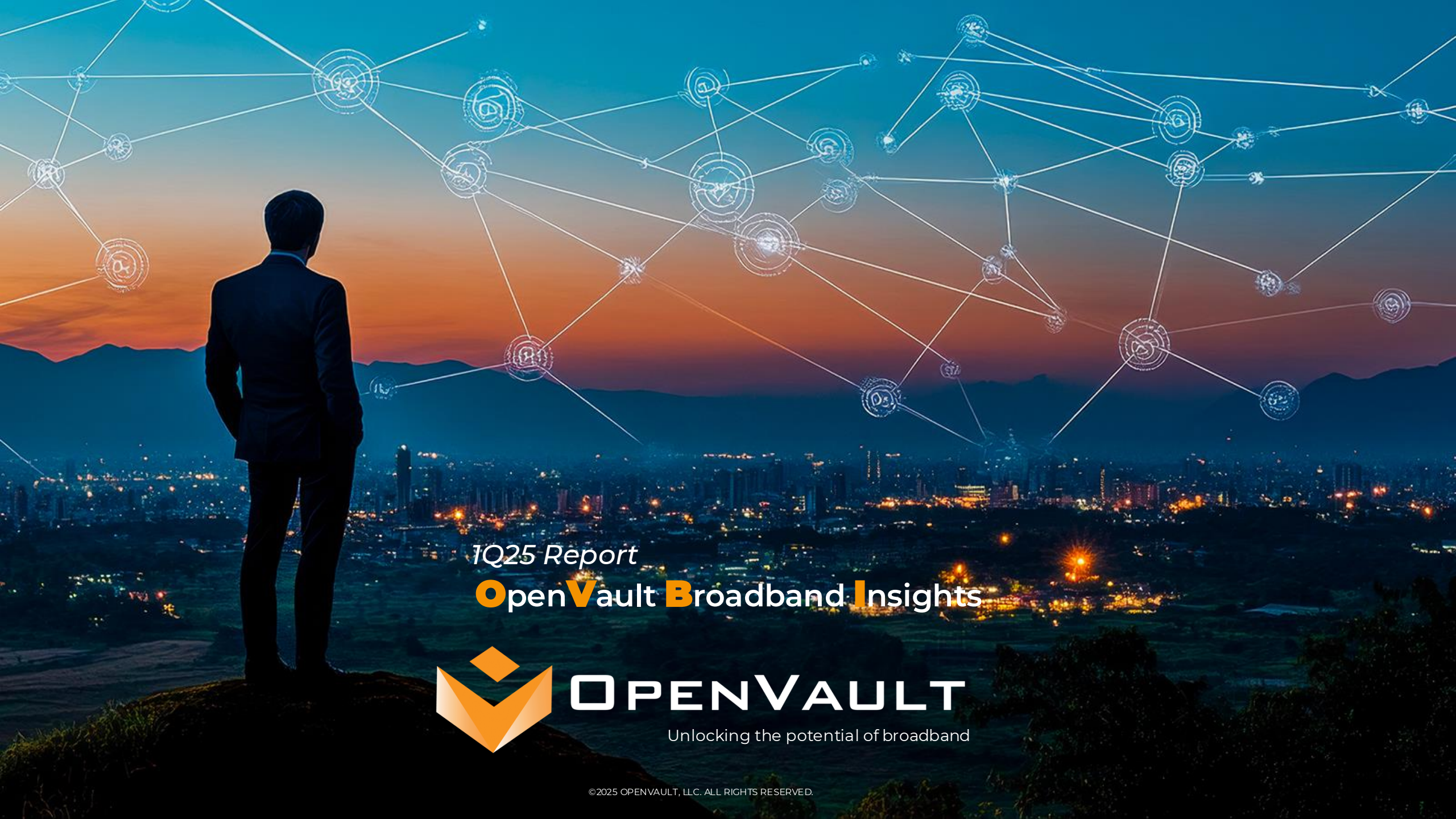

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