

Telecom Technology and Services Group

U.S. Communications Service Provider Quarterly



Investment Banking and Advisory Services

FOCUS Investment Banking LLC is a leading investment bank with specialized telecom technology and services expertise, concentrating on providing highly tailored services to emerging middle market and larger organizations in this sector:

- Mergers & Acquisition Advisory
- Corporate Development Consulting
- Strategic Partnering & Alliances
- Capital Financing, Debt & Equity
- Corporate Valuations

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U.S. Communications Service Provider Quarterly

By Richard Pierce, FOCUS Managing Director and Telecom Technology and Services Team Leader

FOCUS believes that the need for communications services has never been greater. Large enterprises, small and medium sized businesses and individuals have all come to rely upon ubiquitous access to voice, video and data services to run their day-to-day activities. Furthermore, the importance of Communications Service Providers (CSPs) appears poised to increase further as they begin to enable a variety of new services ranging from hosted PBX and videoconferencing platforms to in-home security and energy management solutions. Access to capital and the benefits of scale will mean that a small number of large companies will continue to dominate certain areas such as mobile wireless and video. However, FOCUS continues to see opportunities for middle market CSPs. While not as large as the industry giants, they continue to thrive by developing innovative business models that share one or more characteristics such as capital efficiency, customer responsiveness, an advanced technology platform and a focus on an underserved industry vertical or geography. Furthermore, it is often the middle market CSPs that point the direction for the future of the industry. FOCUS is proud of its commitment to the CSP sector and we are excited about the prospects for middle market companies in this space.

The FOCUS Telecom Technology and Services group consists of two professionals with a combined 30+ years of transaction experience across a wide variety of telecommunications-related companies. The FOCUS Telecom team is uniquely qualified to help middle market clients reach their strategic objectives because the group:

 Devotes significant senior level resources to executing transactions for lower middle market clients,

- Has a breadth of knowledge that covers most segments of the telecom industry,
- Has seasoned bankers with decades of telecom industry experience,
- Has a proven transaction methodology for delivering
- Is equally comfortable with buy side and sell side M&A,
- · Leverages an experienced team of research professionals,
- Has a national presence with coverage of both east and west coasts.

Sub Sector Definitions

Large Cap: Large, diversified communications service providers that control a significant number of former RBOC access lines and/or have a nationwide wireless operation.

Alternative Telecom: Competitive carriers that primarily provide basic voice, data and transport services to businesses and other telecom service providers.

Hosted & Managed Services: Companies that provide hosted VoIP telecom services as well as additional hosted offerings such as audio and video conferencing.

ILEC & Diversified ILEC: Non-RBOC incumbent carriers, many of which have branched out into other sectors of communications services.

Cable & Video: Incumbent cable service providers, satellite video providers and competitive video providers whose core business is providing video services to residential customers.



U.S. Summary Comments

Public Markets

The FOCUS Communications Service Provider Index (CSPI) managed a second straight reporting period in positive territory as it posted a three-month gain of 2.7%. While this was certainly a respectable gain, it still significantly underperformed both the 7.0% gain in the S&P 500 and the 16.8% increase in the NASDAQ over the corresponding time frame. Sector multiples were down somewhat and ended the period at 2.4x revenue and 6.4x EBITDA. This compares to sector multiples of 2.6x revenue and 7.4x EBITDA for the year-ago period.

Large Cap

The Large Cap sub sector gained 0.4% this period, just slightly above break even. AT&T had a relatively strong reporting period with a gain of 4.6%. In stark contrast, Lumen shed nearly half of its value over the past three months. Verizon also lost value this period, but only a modest 1.3%. For the full year, the sub sector is deeply in the red with a loss of 23.0%. All three members of the index tumbled, with Lumen once again suffering far and away the steepest decline. Sub sector multiples declined from 2.5x revenue and 6.6x EBITDA at this time last year to 2.4x revenue and 5.9x EBITDA currently.

Alternative Telecom

The Alternative Telecom sub sector continued its downward trend with a loss of 4.0% in our spring reporting period. Cogent turned in a strong performance with a gain of 11.6%, but this was more than counterbalanced by a decline in Uniti stock of more than 35%. Full-year performance was also disappointing with a drop of 39.9%. While both companies in the sub sector traded lower, Uniti once again accounted for the majority of sub sector losses as it shed nearly three quarters of its value over the past year. Alternative Telecom is another sub sector that is trading at lower multiples than it was a year ago. The sub sector revenue multiple fell from 7.4x to 6.0x, while the EBITDA multiple dropped from 11.5x to 9.2x.

Hosted and Managed Services

The Hosted and Managed Services sub sector finally managed to arrest its general downward trend and spiked up sharply to post a gain of 18.9% in the past three months. This made it far and away the best performing sub sector in the CSPI this period. However, this performance is a bit deceiving, as it was entirely driven by a 36.1% increase at Twilio. Every other stock in the index traded lower this period. Even with this period's gain, the sub sector remains the CSPI's worst performing sub sector for the full year period with a loss of more than 60%. The decline in revenue multiple for the sub sector over the past year is dramatic, as it plummeted from 7.1x all the way down to 2.1x. The sub sector EBITDA multiple continues to be "Not Meaningful", with Bandwidth the only company in the sub sector to have a positive EBITDA margin.

ILEC and Diversified ILEC

The ILEC and Diversified ILEC sub sector was in negative territory for the third straight reporting period as it dropped 7.1%. A 27.9% decline at Consolidated Communications was the obvious culprit. Telephone & Data System s was essentially breakeven, posting a small gain of 0.2%. As might be guessed, the sub sector's year-over-year performance is also dismal with a decline of 47.2%. This makes it the CSPI's second worst performing sub sector over the full-year time period. Sub sector multiples closed out the period at 1.5x revenue and 5.4x EBITDA. These are very similar to sub sector multiples at this time last year of 1.6x revenue and 5.3x EBITDA.

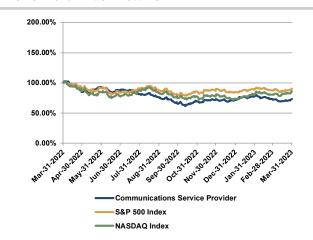
Cable and Video

The Cable and Video sub sector continued its positive trend from our winter report to gain another 5.9% in the spring. This was good enough for the CSPI's silver medal for overall performance this period. Much of this was due to solid performances at both Charter and Comcast, but WOW was actually the sub sector's top performing stock with a three-month gain of 16.7%. The sub sector still remains deeply in the red for the full year with a loss of 25.1% in the past 12 months. Losses were broad-based over this time period with Comcast earning the award for best performer with a drop of "only" 19.0%. Sub sector multiples are also lower compared to the year-ago period. The sub sector revenue multiple dipped from 2.7x to 2.2x, and the EBITDA multiple fell a full turn from 8.3x to 7.3x.



U.S. Communications Service Provider Sector: Public Market Summary

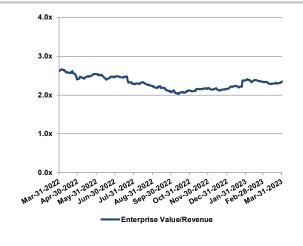
Twelve Month Index Returns



Sector and Sub Sector Returns

	12 Month	3 Month
Communications Service Provider	-26.6%	2.7%
Large Cap	-23.0%	0.4%
Alternative Telecom	-39.9%	-4.0%
Hosted and Managed Services	-63.5%	18.9%
ILEC and Diversified ILEC	-47.2%	-7.1%
Cable and Video	-25.1%	5.9%
S&P 500	-9.3%	7.0%
NASDAQ	-14.1%	16.8%

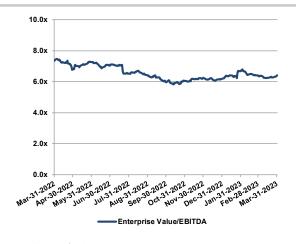
Revenue Multiple Trends



Sector and Sub Sector Revenue Multiples

	3/31/2023	3/31/2022
Communications Service Provider	2.4x	2.6x
Large Cap	2.4x	2.5x
Alternative Telecom	6.0x	7.4x
Hosted and Managed Services	2.1x	7.1x
ILEC and Diversified ILEC	1.5x	1.6x
Cable and Video	2.2x	2.7x

EBITDA Multiple Trends



Sector and Sub Sector EBITDA Multiples

	3/31/2023	3/31/2022
Communications Service Provider	6.4x	7.4x
Large Cap	5.9x	6.6x
Alternative Telecom	9.2x	11.5x
Hosted and Managed Services	NM	NM
ILEC and Diversified ILEC	5.4x	5.3x
Cable and Video	7.3x	8.3x

U.S. Communications Service Provider Stocks: M&A Summary

M&A

The number of M&A transactions in the Communications Service Provider sub sector dropped somewhat this period, but still remained at a fairly robust level of 27 total transactions. However, the total announced transaction dollar volume of these transactions was a mere \$11.2 million. This continues the trend that we began seeing in the back half of last year. The number of M&A transactions in the space remains relatively high, but the vast majority of the deals are fairly small.

Alternative Telecom

With 23 total transactions for the period, the Alternative Telecom sub sector continued along at a brisk pace in terms of M&A. The sub sector benefited from high levels of activity in a number of different types of transactions. Fiber network operators were of course very active, including two new platform investments from major infrastructure investors. These were the Basalt Infrastructure Partners acquisition of Fatbeam and the Macquarie Infrastructure Partners acquisition of Pavlov Media. At the other end of the spectrum, the master agency and agency spaces were also very active. Acquirers in this area included Appsmart, Bluewave Technology Group and UPSTACK. We also noted a number of investments in wireless internet service providers, most notably the acquisition of Rise Broadband by GI Partners. In the final transaction that we will specifically note, Grain Management made a platform investment in "network light" services provider Spectrotel.

Hosted and Managed Services

Activity in the Hosted and Managed Services sub sector was anemic with only a single transaction for the period. This was the acquisition by Skvera of the financially troubled American Virtual Cloud Technologies.

ILEC and Diversified ILEC

The ILEC and Diversified ILEC sub sector notched three transactions this period. Peninsula Fiber Network acquired Michigan-based Winnn Communications. Newly formed Archtop Fiber also inked an acquisition with its purchase of New York-based Hancock Telephone. Finally, in another transaction in the New York market, Antin Infrastructure Partners established a new platform company in the space with its purchase of Empire Access.

Cable and Video

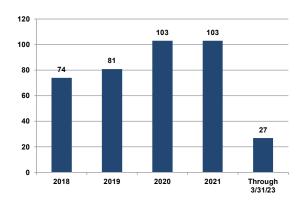
For the third straight reporting period there were no announced transactions in the Cable and Video sub sector.

Transactions with Announced Multiples

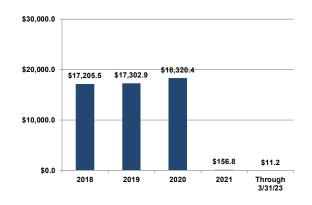
There were no transactions with announced multiples this period.

U.S. Communication Service Provider Sector: M&A Summary

M&A Activity: Number of Transactions



M&A Activity (\$ Value of Transactions in Millions)





M&A Announced Transactions (1/1/23 – 3/31/23)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
Basalt Infrastructure Partners	Fatbeam	Alternative Telecom Service Providers	3/28/23	NA	Broadband service provider that owns and operates a 1,250- route mile fiber network in the western United States.
Macquarie Infrastructure Partners	Pavlov Media	Alternative Telecom Service Providers	3/28/23	NA	Provides broadband services to multi-dwelling units under bulk agreements across more than 150 markets in the U.S. and Canada.
Element8	AtLink Services	Alternative Telecom Service Providers	3/16/23	NA	Oklahoma City-based WISP.
Ziply	Ptera	Alternative Telecom Service Providers	3/10/23	NA	Fiber internet and fixed wireless internet provider serving four counties across Eastern Washington and Northern Idaho.
Skyvera	American Virtual Cloud Technologies	Hosted and Managed Telecom Services	3/8/23	NA	Provider of global, carrier-grade white-label cloud communications services.
UPSTACK	LinkSource Technologies	Alternative Telecom Service Providers	3/6/23	NA	Network and cloud sourcing as well as managed services such as telecom expense management and mobility management.
SDC Capital Partners	Cityside Networks	Alternative Telecom Service Providers	2/23/23	NA	Internet and network services to residential, business and carrier customers in Southern California through a fiber optic network.
Wafra and Post Road Group	Intermountain Infrastructure Group	Alternative Telecom Service Providers	2/22/23	NA	Long haul, regional and metro fiber networks in Washington, Idaho, Montana, Illinois, Nevada, California, British Columbia and Alberta.
One Ring Networks	Telegia Communications	Alternative Telecom Service Providers	2/16/23	NA	Integrated internet services for small and mid-sized businesses and residents including connectivity, voice, hosted PBX and VoIP.
i3 Broadband	Big River Broadband	Alternative Telecom Service Providers	2/7/23	NA	Fiber optic internet services for consumers and businesses in southeastern Missouri.
Bluewave Technology Group	SinglePoint Solutions	Alternative Telecom Service Providers	2/6/23	NA	Voice and data solutions in partnership with carriers including voice services, connectivity services, VPNs and MPLS.
Bluewave Technology Group	Palladium Communication Group	Alternative Telecom Service Providers	2/6/23	NA	Offers cloud and telecom solutions and related consulting services.
LiveOak Fiber	Alma Telephone (Glynn and Camden County Fiber Assets)	Alternative Telecom Service Providers	2/3/23	NA	Fiber assets in Glynn and Camden counties, Georgia.
GI Partners	Rise Broadband	Alternative Telecom Service Providers	2/2/23	NA	Fixed wireless broadband services to businesses and consumers in the $\mbox{U.S.}\xspace$
AppSmart	Telecom Brokerage	Alternative Telecom Service Providers	2/1/23	NA	Master distributor providing telecom and IT services for channel partners.
Arvig Enterprises	ALPS Utilities (Fiber Network)	Alternative Telecom Service Providers	2/1/23	NA	77 route miles of fiber and another 13 miles of conduit in the city of Alexandria, Minnesota.
Tahoe Network Infrastructure	E-vergent	Alternative Telecom Service Providers	1/30/23	\$11.2	Fiber and fixed wireless internet and voice services for businesses and consumers.
CBRE Investment Management	Gateway Fiber	Alternative Telecom Service Providers	1/27/23	NA	Fiber-to-the-home owner, operator and developer covering 12 cities in Missouri.
Consolidated Smart Systems	Direct Plus	Alternative Telecom Service Providers	1/24/23	NA	Miami, Florida-based multi-family internet service provider.
Grain Management	Spectrotel	Alternative Telecom Service Providers	1/19/23	NA	Integrated IT and telecom services for businesses including managed security, connectivity and cloud communications.
Peninsula Fiber Network	Winn Communications	Diversified ILEC	1/19/23	NA	Fiber optic-based telecommunications services in the Mount Pleasant, Michigan region.
Antin Infrastructure Partners	Empire Access	Diversified ILEC	1/17/23	NA	FTTP provider in New York and Pennsylvania with a network of 1,280 fiber route miles and 29,000 customers.
ImOn Communications	FiberComm	Alternative Telecom Service Providers	1/17/23	NA	Provides internet and VoIP services and operates a data center in Sioux City, Iowa.
WANRack	KwiKom	Alternative Telecom Service Providers	1/13/23	NA	Internet and voice services across 75 counties in Kansas, Missouri, Oklahoma and Nebraska.
PacketFabric	Unitas Global	Alternative Telecom Service Providers	1/12/23	NA	Delivers connectivity, internet and managed network services to enterprise customers.
Archtop Fiber	Hancock Telephone Company	Diversified ILEC	1/5/23	NA	Telecom services for consumers and businesses in the Hancock, NY market.
Ozark Fiber	Missouri Telecom (Internet and Voice Business)	Alternative Telecom Service Providers	1/3/23	NA	Internet and voice services for residential and small-to-medium- sized businesses in Monett, Missouri and surrounding areas.



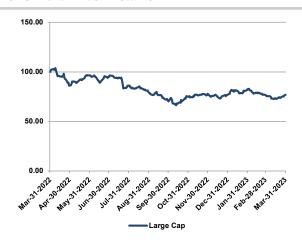
M&A Announced Transactions with Revenue Multiples (4/30/22 - 3/31/23)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
Crexendo	Allegiant Networks	Hosted and Managed Telecom Services	10/21/22	\$9.3	0.9 x	20.8 x	Kansas-based provider of unified communications, managed services and network services.
Ooma	Intrado (OnSip Business)	Hosted and Managed Telecom Services	9/1/22	\$9.8	1.0 x	NA	Phone and unified communications SaaS and hosted services to small and mid-size businesses in the U.S.
iQSTEL	Whisl	Hosted and Managed Telecom Services	5/9/22	\$3.5	0.6 x	NA	VOIP, voice, PBX, SIP trunk, voice termination, call authentication and verification and other voice communications services.



Sub Sector Analysis: Large Cap

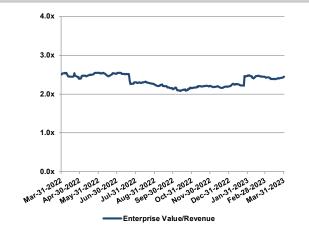
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Large Cap Index	-23.0%	0.4%
AT&T	-18.5%	4.6%
Lumen	-76.5%	-49.2%
Verizon	-23.7%	-1.3%

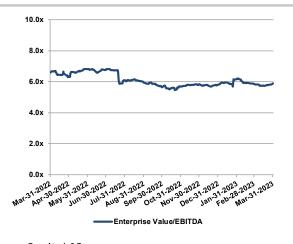
Revenue Multiple Trends



Company Revenue Multiples

	3/31/2023	3/31/2022
Large Cap Index	2.4x	2.5x
AT&T	2.5x	2.3x
Lumen	1.3x	2.2x
Verizon	2.5x	2.9x

EBITDA Multiple Trends

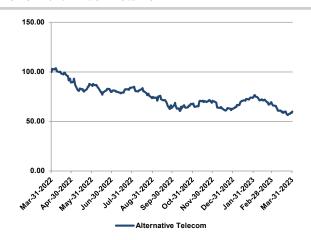


Company EBITDA Multiples

	3/31/2023	3/31/2022
Large Cap Index	5.9x	6.6x
AT&T	6.8x	7.1x
Lumen	3.6x	5.4x
Verizon	6.8x	8.7x

Sub Sector Analysis: Alternative Telecom

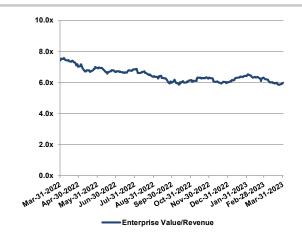
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Alternative Telecom Index	-39.9%	-4.0%
Cogent Communications	-4.0%	11.6%
Uniti	-74.2%	-35.8%

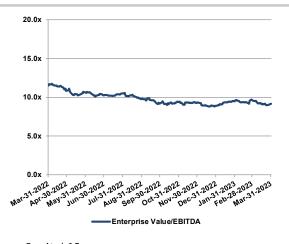
Revenue Multiple Trends



Company Revenue Multiples

	3/31/2023	3/31/2022
Alternative Telecom Index	6.0x	7.4x
Cogent Communications	7.2x	7.1x
Uniti	5.4x	7.6x

EBITDA Multiple Trends



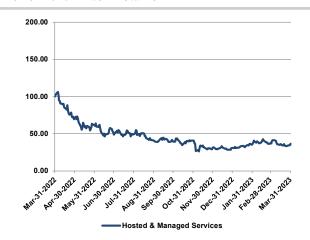
Company EBITDA Multiples

	3/31/2023	3/31/2022
Alternative Telecom Index	9.2x	11.5x
Cogent Communications	20.1x	19.9x
Uniti	6.9x	9.8x



Sub Sector Analysis: Hosted & Managed Services

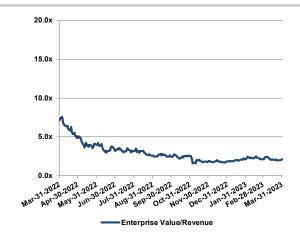
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Hosted & Managed Services Index	-63.5%	18.9%
8x8	-66.9%	-3.5%
Bandwidth	-53.1%	-33.8%
Crexendo	-54.5%	-13.2%
Kaleyra	-92.1%	-37.6%
RingCentral	-73.8%	-13.4%
Twilio	-59.6%	36.1%

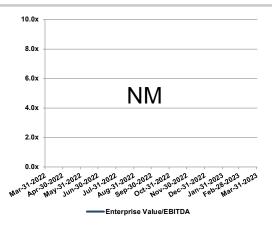
Revenue Multiple Trends



Company Revenue Multiples

	3/31/2023	3/31/2022
Hosted & Managed Services Index	2.1x	7.1x
8x8	1.2x	2.8x
Bandwidth	1.2x	1.9x
Crexendo	1.1x	2.4x
Kaleyra	0.5x	1.3x
RingCentral	2.3x	7.3x
Twilio	2.5x	8.3x

EBITDA Multiple Trends

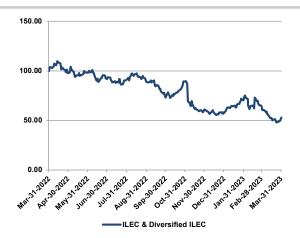


Company EBITDA Multiples

	3/31/2023	3/31/2022
Hosted & Managed Services Index	NM	NM
8x8	NM	NM
Bandwidth	72.7x	37.6x
Crexendo	NM	NM
Kaleyra	NM	NM
RingCentral	NM	NM
Twilio	NM	NM

Sub Sector Analysis: ILEC & Diversified ILEC

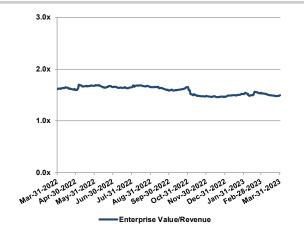
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
ILEC & Diversified ILEC Index	-47.2%	-7.1%
Consolidated Communications	-56.3%	-27.9%
Telephone & Data Systems	-44.3%	0.2%

Revenue Multiple Trends



Company Revenue Multiples

	3/31/2023	3/31/2022
ILEC & Diversified ILEC Index	1.5x	1.6x
Consolidated Communications	2.0x	2.3x
Telephone & Data Systems	1.4x	1.5x

EBITDA Multiple Trends



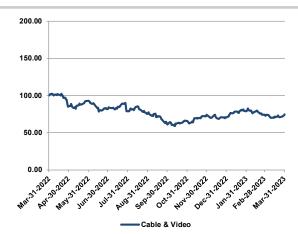
Company EBITDA Multiples

	3/31/2023	3/31/2022
ILEC & Diversified ILEC Index	5.4x	5.3x
Consolidated Communications	6.7x	6.9x
Telephone & Data Systems	7.0x	6.6x



Sub Sector Analysis: Cable & Video

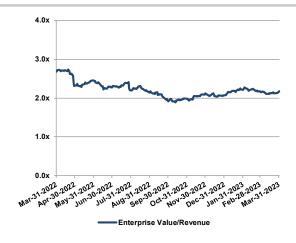
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Cable & Video Index	-25.1%	5.9%
Altice	-72.6%	-25.7%
Cable One	-52.1%	-1.4%
Charter Communications	-34.4%	5.5%
Comcast	-19.0%	8.4%
Dish Network	-70.5%	-33.5%
WOW	-39.0%	16.7%

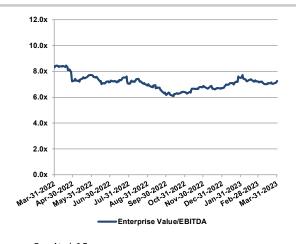
Revenue Multiple Trends



Company Revenue Multiples

	3/31/2023	3/31/2022
Cable & Video Index	2.2x	2.7x
Altice	2.9x	3.2x
Cable One	4.5x	7.4x
Charter Communications	2.9x	3.8x
Comcast	2.2x	2.6x
Dish Network	1.6x	2.0x
WOW	2.3x	2.9x

EBITDA Multiple Trends



Company EBITDA Multiples

	3/31/2023	3/31/2022
Cable & Video Index	7.3x	8.3x
Altice	7.6x	7.6x
Cable One	8.6x	14.5x
Charter Communications	7.3x	9.7x
Comcast	7.2x	8.8x
Dish Network	9.8x	9.6x
W0W	7.5x	13.0x

FOCUS Telecom Technology and Services Team



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Rich Pierce has 20 years of investment banking experience advising

middle market clients on a variety of mergers and acquisitions and capital raising transactions. During that time, Mr. Pierce's primary emphasis has been on serving clients in the telecommunications industry including providers of network related hardware and software products, wireless and wireline telecommunications service providers and network engineering and construction companies.



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David Freeland, a FOCUS Managing Director, has more than fifteen years of experience providing invest-

ment banking and management consulting services to a variety of corporate clients, ranging from the Fortune 500 to start-up businesses. He has been an investment banker since 2003, advising clients on mergers and acquisitions and capital raising transactions. Mr. Freeland has broad experience in the telecom and technology industry and has significant experience with data center companies.

About FOCUS Investment Banking LLC

With more than three decades of experience, FOCUS Investment Banking is a trusted name in M&A advisory services worldwide. FOCUS works to understand each client's strategic and financial objectives, craft the best plan to achieve these goals, and deliver success. Whether helping to sell, buy, or raise capital, FOCUS strives to maximize the value of every transaction to the benefit of its clients. FOCUS bankers are seasoned operating and financial executives with extensive transaction experience. Securities transactions conducted by FOCUS Securities LLC, an affiliated company, registered Broker Dealer member FINRA/SIPC. For more information on FOCUS, please visit www.focusbankers.com.

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