FOCUS Telecom

Technology and Services Group

U.S. Communications Service Provider Quarterly

Winter 2017 Report

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FOCUS

Investment Banking

Strategic, Personal, Dedicated

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 often is 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 four professionals with a mix of backgrounds that include both C-level operating expertise and experience at leading middle market investment banks. 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 bankers with C-level operating experience in the telecom industry,
- Has a proven transaction methodology for delivering results,
- 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 and Managed Services: Companies that provide hosted VoIP telecom services as well as additional hosted offerings such as audio and video conferencing.

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

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

Summary Comments

Public Markets

The Communications Service Provider Index (CSPI) posted a solid three-month gain of 3.4% for our winter reporting period. This gain was roughly in line with the 3.3% gain in the S&P 500 and higher than the 1.3% gain in the NASDAQ over the corresponding time period. Over the last 12 months, the difference between the CSPI and the broader indices is even more pronounced. The CSPI is up 18.0% in the past 12 months, while the S&P 500 and NASDAQ are up only 9.5% and 7.5%, respectively. The past year saw a mixed performance in terms of sector multiples. The sector revenue multiple increased from 2.4x to 2.5x, while the sector EBITDA multiple fell from 8.6x to 7.6x.

Large Cap

The Large Cap sub sector bounced back from its poor performance in our fall report to post a three-month gain of 3.3%. Of the four stocks in the sub sector, three were in positive territory. By far the largest gain was at Sprint, which was up more than 25% in the past three months. The sole company in negative territory was CenturyLink, which dropped 13.3%. For the full year, the sub sector is up 18.9%. Once again, Sprint was far and away the top performer, more than doubling over the course of the past year, while CenturyLink was the only company in negative territory. Like the CSPI as a whole, multiple performance was mixed. The revenue multiple was up slightly, going from 2.3x a year ago to 2.4x currently. However, the sub sector EBITDA multiple dropped from 8.5x to 7.0x over this same time frame.

Alternative Telecom

The Alternative Telecom sub sector was the top performing sub sector this period with a gain of 16.3% in the past three months. Gains were broad-based as six of the nine stocks in the index delivered positive returns. Two of the stocks with large gains, Level 3 and Inteliquent, both announced agreements to be acquired. Other companies that delivered big returns were Boingo, Cogent, GTT, and Zayo. Of the three companies that posted negative returns, Towerstream was the worst performer as it dropped 86.4%. Windstream and Earthlink both fell as well after the two announced that they were merging. The Alternative Telecom sub sector also enjoyed a year-over-year gain of 10.6%. Sub sector multiples ended the period at 3.2x revenue and 9.8x EBITDA. This was roughly unchanged from multiples for the year-ago period.

Hosted and Managed Services

At the other end of the spectrum, the 15.5% drop in the Hosted and Managed Services sub sector made it our worst performing sub sector for the three-month period. The single biggest reason for the decline was a drop of more than 55% at newly minted public company Twilio. We also noted that cloud-based VoIP providers 8x8 and RingCentral suffered double digit losses. That being said, the two companies in the sub sector to deliver positive returns, Vonage and West Corporation, also operate in the cloud-based VoIP market, so losses were not indiscriminate. For the full-year, the sub sector was up a modest 2.0%, with 8x8, Vonage, and West Corporation all sporting double digit increases. Sector multiples also are up over the past year. The sub sector revenue multiple now stands at 3.2x (compared to 3.0x a year ago), while the sub sector EBITDA multiple ended at 15.0x (compared to 12.8x a year ago).

ILEC and Diversified ILEC

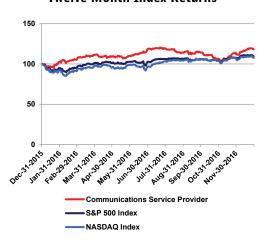
The ILEC and Diversified ILEC sub sector had yet another rough go of it in our winter reporting period as the sub sector plummeted nearly 10% in the past three months. This drop was in spite of the fact more than half of the company's in the sub sector were actually in positive territory for the period. However, steep drops at CS&L and Frontier outweighed gains in the sub sector's smaller market cap companies. Even with this period's drops, the sub sector is still in positive territory for the year with a gain of 3.0%. Frontier is the main drag on the sub sector over this time frame as well, counterbalancing strong yearover-year gains at CS&L, Consolidated Communications, Cincinnati Bell, and Lumos Networks. Multiples for the sub sector are down compared to the year-ago period. The sub sector revenue multiple fell from 2.7x to 2.5x, and the sub sector EBITDA multiple declined from 8.5x to 7.1x.

Cable and Video

The Cable and Video sub sector had a second straight period with a solid three-month gain. The sub sector was up 4.4% as every company in the sub sector posted a positive return. Charter continued to perform extremely well with a gain of nearly 20%. Not to be outdone, General Communication was up more than 40%. These gains helped push the Cable and Video sub sector into a tie with the Large Cap sub sector for the best performing sub sector over the past 12 months. During this time frame, the sub sector enjoyed an impressive 18.9% gain. Sub sector multiples also continued to climb compared to this time last year, and closed out the period at 2.8x revenue and 9.2x EBITDA.

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

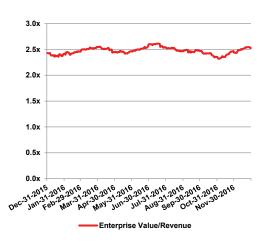
Twelve Month Index Returns



Sector and Sub Sector Returns

	12 Month	3 Month
Communications Service Provider	18.0%	3.4%
Large Cap	18.9%	3.3%
Alternative Telecom	10.6%	16.3%
Hosted and Managed Services	2.0%	-15.5%
ILEC and Diversified ILEC	3.0%	-9.5%
Cable and Video	18.9%	4.4%
S&P 500	9.5%	3.3%
NASDAQ	7.5%	1.3%

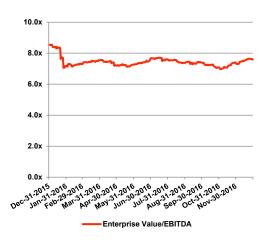
Revenue Multiple Trends



Sector and Sub Sector Revenue Multiples

	12/31/2016	12/31/2015
Communications Service Provider	2.5x	2.4x
Large Cap	2.4x	2.3x
Alternative Telecom	3.2x	3.2x
Hosted and Managed Services	3.2x	3.0x
ILEC and Diversified ILEC	2.5x	2.7x
Cable and Video	2.8x	2.5x

EBITDA Multiple Trends



Sector and Sub Sector EBITDA Multiples

	12/31/2016	12/31/2015
Communications Service Provider	7.6x	8.6x
Large Cap	7.0x	8.5x
Alternative Telecom	9.8x	10.0x
Hosted and Managed Services	15.0x	12.8x
ILEC and Diversified ILEC	7.1x	8.5x
Cable and Video	9.2x	8.2x

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

M&A

The Communications Service provider sector closed out 2016 with a bang by notching 21 transactions for a total announced transaction dollar volume of \$39.6 billion. While the number of transactions in the period continues the trend of strong deal volume we have seen thus far during the year, the last three months showed an impressive pickup in announced transaction dollar volume. In fact, this current period accounted for more than 80% of total announced transaction dollar volume for all of 2016. For the entire year, we counted 77 transactions, making it the most active M&A year of any of the last five based on this metric. While annual dollar volume was not as high as either of the two previous years, it still came in at an extremely respectable \$46.3 billion. 2016 was clearly a strong year for M&A for the sector.

Alternative Telecom

The pattern continued as the Alternative Telecom sub sector had 12 transactions for the third straight reporting period. This included the announced acquisition of Level 3 by CenturyLink, which weighed in at an impressive \$34.7 billion. In addition to the CenturyLink/Level 3 deal, the sub sector announced two other billion-dollar transactions. These were Zayo Group's planned acquisition of Electric Lightwave for \$1.4 billion and Windstream's pending acquisition of Earthlink for \$1.0 billion. We also noted a number of smaller deals for fiber-based providers including the acquisition of Lynx Networks by Everstream Solutions and the acquisition of Clarity Communications by Lumos Networks. However, activity for the period was not limited solely to asset heavy targets. We noted that Masergy Communications obtained a new private equity owner in Berkshire Partners, while GTT acquired the Ethernet business from Reliance Globalcom.

Hosted and Managed Services

The Hosted and Managed Services sub sector also was active this reporting period with a total of six transactions. Interestingly, two of these transactions were made by technology companies acquiring partners that resold their cloud products. These were the acquisition of VoIP Logic by Broadsoft and the acquisition of the telecom related assets of Micro Advantage by Sangoma Technologies. Fusion Telecommunications also was active this period with its purchase of Apptix for \$28.0 million. Finally, newcomers BCT Consulting, GlobalGig, and RingLeader rounded out the remainder of our acquirers for the period.

ILEC and Diversified ILEC

While the announced acquisition of Fairpoint Communications by Consolidated Communications was the ILEC and Diversified ILEC sub sector's only transaction for the period, it certainly was a meaningful one in terms of dollar volume. In fact, at a total deal value of \$1.5 billion, it was the second largest transaction for our winter reporting period.

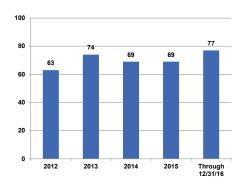
Cable and Video

Activity in the Cable and Video sub sector slowed somewhat at the end of 2016 as we counted only two transactions for the period. First, Midcontinent Communications picked up properties in Lawrence, Kansas from WOW in a "footprint rationalization" transaction. In the sub sector's second transaction, Pinpoint Holdings acquired Accipter Communications for \$5.3 million.

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

M&A Activity: Number of Transactions



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



Transactions with Announced Multiples

This period we were lucky to have a record seven transactions with announced multiples. The period's largest transaction, the CenturyLink acquisition of Level 3, also was one of the period's highest multiple transactions at 4.2x revenue and 13.1x EBITDA. The Midcontinent Communications acquisition of WOW's Lawrence, Kansas property had a slightly higher revenue multiple of 4.7x but a lower EBITDA multiple of 9.2x. On the other end of the spectrum, growth challenged companies such as Fairpoint Communications and Earthlink went for significantly

lower multiples. The Windstream acquisition of Earthlink weighed in at 1.0x revenue and 5.1x EBITDA, while the Consolidated Communications acquisition of Fairpoint was done at 1.8x revenue and 3.2x EBITDA. We also had two multiples for acquisitions of asset-light companies in the Alternative Telecom sub sector. These were the GTT acquisition of the Ethernet Division of Reliance Globalcom for 0.7x revenue and the acquisition of Inteliquent by Onvoy for 2.1x revenue and 9.8x EBITDA. Finally, Fusion Telecommunications acquired hosted communications provider Apptix for 1.1x revenue.

M&A Announced Transactions (07/01/2016 – 12/31/2016)

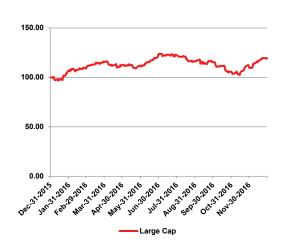
Acquiror	Target	Date Announced	Sector	Purchase Price	Description
Pinpoint Holdings	Accipiter Communications	12/15/16	Cable and Video	\$5.3	Provides high-speed Internet, telephone and digital television services to residents and businesses.
GlobalGig	Velis4	12/6/16	Hosted & Managed Services	NA	Hosted VoIP phone services, SIP trunking services, wholesale VOIP solutions and business broadband and MPLS network services.
Consolidated Communications	Fairpoint Communications	12/5/16	Diversified ILEC	\$1,467.6	Communications services to business, wholesale and residential customers in 17 states.
Everstream Solutions	Lynx Network Group	12/2/16	Alternative Telecom	NA	Wholesale and retail provider of telecommunications services with 2,200 miles of fiber-optic cable in Michigan.
RingLeader	EtherSpeak	12/1/16	Hosted & Managed Services	NA	SIP trunking, hosted VoIP services and cloud-based PBX solutions.
Sangoma Technologies	Micro Advantage (Telecom Assets)	11/30/16	Hosted & Managed Services	NA	Hosted telecom and IT solutions provider whose services include a cloud PBX offering based on Sangoma's technology.
Zayo Group	Electric Lightwave	11/30/16	Alternative Telecom	\$1,420.0	Communications network services for telecom carriers with 8,100 route miles of long haul fiber and 4,000 miles of dense metro fiber.
Knowroaming	Telecom North America	11/28/16	Alternative Telecom	NA	Interexchange carrier offering long-distance telecommunication services.
GTT	Reliance Globalcom (Ethernet Business Division)	11/18/16	Alternative Telecom	\$28.0	Provides Ethernet connectivity services.
Fusion Telecommunications	Apptix	11/15/16	Hosted & Managed Services	\$28.0	Provider of hosted business communication, collaboration and IT solutions to businesses of all sizes.
Telephone & Data Systems	InterLinx	11/15/16	Alternative Telecom	NA	Provides fiber-based communications services, including wholesale carrier services and direct services to businesses and consumers.
BCT Consulting	TeleDynamic Communications	11/14/16	Hosted & Managed Services	NA	Premise-based PBX, virtual PBX and SIP Trunking services.
Lumos Networks	Clarity Communications	11/10/16	Alternative Telecom	\$10.0	Operates a 730-mile fiber network with 75 on-net fiber locations located across four states in the Southeast.
Windstream	EarthLink	11/7/16	Alternative Telecom	\$1,019.1	Managed network, security and cloud services to business and residential customers.
Onvoy	Inteliquent	11/2/16	Alternative Telecom	\$671.8	Provides voice telecommunications services on a wholesale basis including local transit, long distance, switched access and toll-free.
Crown Castle	FPL FiberNet	11/1/16	Alternative Telecom	NA	Operates a network of 11,500 route miles of fiber installed and under construction in Florida and Texas.
BroadSoft	VoIP Logic	10/31/16	Hosted & Managed Services	\$13.4	Wholesale provider of BroadWorks-based cloud communications services to internet and other service providers in the US.
CenturyLink	Level 3 Communications	10/31/16	Alternative Telecom	\$34,725.8	Facilities-based provider of communications services including Internet services, virtual private network and Ethernet.
Berkshire Partners	Masergy Communications	10/24/16	Alternative Telecom	NA	Cloud networking platform that delivers hybrid network, managed security and cloud unified communication solutions.
Midcontinent Communications	WOW (Lawrence, KS Operations)	10/21/16	Cable and Video	\$215.0	Offers high-speed Internet, cable television, phone, business data, voice and cloud services to residential and business customers.
Cleareon	Pangaea Networks	10/20/16	Alternative Telecom	NA	Metro Ethernet services to carriers, service providers and enterprises throughout the NYC metro and tri-state region.
All Points Broadband	New River Valley Unwired	9/29/16	Alternative Telecom	NA	Wireless internet service provider based in Christiansburg, Virginia.
nexVortex	agileTel	9/21/16	Hosted & Managed Services	NA	Hosted voice provider specializing in solutions for enterprises that serve customers through a franchise-format business model.
Wave Broadband	CoastCom	9/14/16	Alternative Telecom	NA	Provides high-speed internet, data and voice services for businesses on the Oregon Coast and in Central Oregon.

$M\&A\ Announced\ Transactions\ (07/01/2016-12/31/2016)\ continued$

Acquiror	Target	Date Announced	Sector	Purchase Price	Description
Wave Broadband	SawNet	9/14/16	Alternative Telecom	NA	Broadband services provider for businesses, schools and consumers in the Columbia Gorge region of Oregon and Washington.
Richardson Communications	VARCentric	9/9/16	Alternative Telecom	NA	Telecom and network solutions including IP telephony, VoIP, Desktop-as-a- Service and Infrastructure-as-a-Service.
PhoenixSoft	CloudConnect	8/15/16	Hosted & Managed Services	NA	Provides virtual phone services for business communications and Internet bandwidth services.
TPG	Grande Communications	8/15/16	Cable and Video	\$650.0	Sells cable, Internet and phone services to residential, small business and enterprise customers in Texas.
TPG	RCN	8/15/16	Cable and Video	\$1,600.0	Digital cable television, high-speed Internet and voice services to residential and business customers.
FirstLight Fiber	Sovernet Communications	8/9/16	Alternative Telecom	NA	Middle mile fiber provider that serves Vermont, New York and southwest New Hampshire,
ScanSource	Intelisys	8/8/16	Alternative Telecom	\$83.6	Distributor of business telecommunications services including voice, data, access, cable, collaboration, wireless and cloud.
General Communication	Kodiak Kenai Cable (Fiber Link from Kenai to Anchorage)	8/3/16	Alternative Telecom	\$20.0	Low-latency redundant fiber link connecting Anchorage, the Kenai Peninsula and Kodiak.
wow	NuLink	8/2/16	Cable and Video	\$53.0	High-speed Internet, digital cable TV and phone services to residential and business customers in Newnan, Georgia.
LogMeIn	Citrix (GoToMeeting Business)	7/26/16	Hosted & Managed Services	\$1,802.6	Cloud-based tools for meetings, Webinars, audio conferencing and telephony.
Sandler Partners	X4 Solutions	7/25/16	Alternative Telecom	NA	Master telecom agency based in the Midwest.
TPT Global Tech	Goodwin Global Communications	7/19/16	Alternative Telecom	NA	International wholesale telecommunications carrier specializing in VOIP technology and SIP trunking services for businesses.
Strome Networks	Allied Fiber (Certain Assets)	7/15/16	Alternative Telecom	NA	Designs, constructs and operates a colocation and dark fiber network in Florida and Georgia.
FirstLight Fiber	Oxford Networks	7/7/16	Alternative Telecom	NA	Provides telecommunications services to people, businesses and communities in Maine and Northern New England.
Cox Communications	Unite Private Networks	7/6/16	Alternative Telecom	NA	Fiber-based communications networks serving schools, governments, carriers, data centers and other enterprise businesses.

$M\&A\ Announced\ Transactions\ with\ Revenue\ Multiples\ (01/01/2016-12/31/2016)$

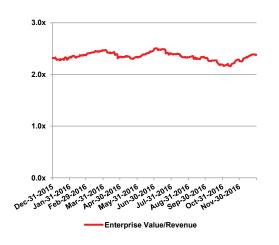
Acquiror	Target	Date Announced	Sector	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
Consolidated Communications	Fairpoint Communications	12/5/16	Diversified ILEC	\$1,467.6	1.8 x	3.2 x	Communications services to business, wholesale and residential customers in 17 states.
GTT	Reliance Globalcom (Ethernet Business Division)	11/18/16	Alternative Telecom	\$28.0	0.7 x	NA	Provides Ethernet connectivity services.
Fusion Telecommunications	Apptix	11/15/16	Hosted & Managed Services	\$28.0	1.1 x	NA	Provider of hosted business communication, collaboration and IT solutions to businesses of all sizes.
Windstream	EarthLink	11/7/16	Alternative Telecom	\$1,019.1	1.0 x	5.1 x	Managed network, security and cloud services to business and residential customers.
Onvoy	Inteliquent	11/2/16	Alternative Telecom	\$671.8	2.1 x	9.8 x	Provides voice telecommunications services on a wholesale basis including local transit, long distance, switched access and toll-free.
CenturyLink	Level 3 Communications	10/31/16	Alternative Telecom	\$34,725.8	4.2 x	13.1 x	Facilities-based provider of communications services including Internet services, virtual private network and Ethernet.
Midcontinent Communications	WOW (Lawrence, KS Operations)	10/21/16	Cable and Video	\$215.0	4.7 x	9.2 x	Offers high-speed Internet, cable television, phone, business data, voice and cloud services to residential and business customers.
ScanSource	Intelisys	8/8/16	Alternative Telecom	\$83.6	0.7 x	NA	Distributor of business telecommunications services including voice, data, access, cable, collaboration, wireless and cloud.
wow	NuLink	8/2/16	Cable and Video	\$53.0	NA	6.3 x	High-speed Internet, digital cable TV and phone services to residential and business customers in Newnan, Georgia.
LogMeIn	Citrix (GoToMeeting Business)	7/26/16	Hosted & Managed Services	\$1,802.6	2.7 x	NA	Cloud-based tools for meetings, Webinars, audio conferencing and telephony.
CS&L	Tower Cloud	6/20/16	Alternative Telecom	\$230.0	5.6 x	17.7 x	Data transport services specializing in fiber-to-the- tower backhaul, small cell networks and dark fiber deployments.
GoDaddy	Freedom Voice	5/17/16	Hosted & Managed Services	\$47.0	0.8 x	NA	Cloud-based phone system that delivers enterprise- quality voice over IP for small offices.
Vonage	Nexmo	5/5/16	Hosted & Managed Services	\$250.0	4.2 x	NA	Develops cloud-based API solutions that enable applications and enterprises to make phone calls or send and receive text messages.
Mutual Telephone and Winnebago Cooperative	Consolidated Communications (Heartland Telephone)	5/3/16	Diversified ILEC	\$22.5	3.2 x	NA	Provides telephone service for eleven communities in northwest lowa.
Consolidated Communications	The Champaign Telephone Company	4/18/16	Alternative Telecom	\$13.0	1.3 x	NA	Internet, voice, metro Ethernet and hosted VoIP provider.
magicJack VocalTec	Broadsmart	3/17/16	Hosted & Managed Services	\$40.0	3.1 x	8.7 x	Hosted UCaaS provider for medium-to-large multi-location enterprise customers.
Global Telecom and Technology	Telnes Broadband	2/8/16	Alternative Telecom	\$20.0	1.2 x	20.0 x	Designs, builds and manages private networks and offers a variety of connectivity services.



Company Returns

	12 Month	3 Month
Large Cap Index	18.9%	3.3%
AT&T	23.6%	4.7%
CenturyLink	-5.5%	-13.3%
Sprint	132.6%	27.0%
Verizon	15.5%	2.7%

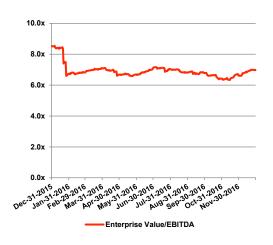
Revenue Multiple Trends



Company Revenue Multiples

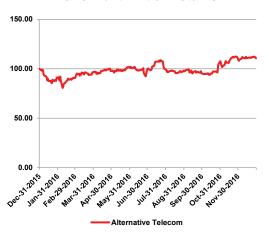
	12/31/2016	12/31/2015
Large Cap Index	2.4x	2.3x
AT&T	2.3x	2.3x
CenturyLink	1.8x	1.9x
Sprint	2.0x	1.4x
Verizon	2.5x	2.3x

EBITDA Multiple Trends



Company EBITDA Multiples

	12/31/2016	12/31/2015
Large Cap Index	7.0x	8.5x
AT&T	7.1x	7.1x
CenturyLink	4.8x	5.0x
Sprint	7.1x	5.9x
Verizon	7.1x	6.1x



Company Returns

	12 Month	3 Month
Alternative Telecom Index	10.6%	16.3%
Boingo	84.1%	18.6%
Cogent Communications	19.2%	12.3%
EarthLink	-24.1%	-9.0%
GTT	68.5%	22.2%
Inteliquent	29.0%	42.0%
Level 3	3.7%	21.5%
Towerstream	-97.6%	-86.4%
Windstream	13.8%	-27.1%
Zayo Group	23.6%	10.6%

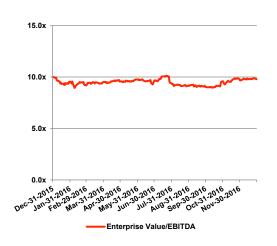
Revenue Multiple Trends



Company Revenue Multiples

	12/31/2016	12/31/2015
Alternative Telecom Index	3.2x	3.2x
Boingo	3.1x	1.9x
Cogent Communications	5.2x	4.8x
EarthLink	1.0x	1.1x
GTT	2.9x	2.2x
Inteliquent	1.9x	2.0x
Level 3	3.6x	3.6x
Towerstream	1.0x	1.5x
Windstream	1.9x	2.0x
Zayo Group	6.4x	6.9x

EBITDA Multiple Trends



Company EBITDA Multiples

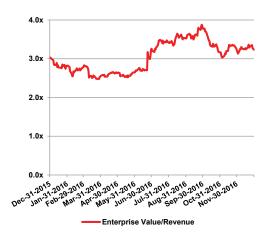
	12/31/2016	12/31/2015
Alternative Telecom Index	9.8x	10.0x
Boingo	19.4x	12.0x
Cogent Communications	17.4x	16.3x
EarthLink	4.7x	5.3x
GTT	14.2x	11.8x
Inteliquent	9.4x	6.9x
Level 3	11.1x	11.6x
Towerstream	NM	NM
Windstream	5.6x	5.8x
Zayo Group	14.3x	14.7x



Company Returns

	12 Month	3 Month
Hosted & Managed Services Index	2.0%	-15.5%
8x8	24.9%	-7.3%
Glowpoint	-46.5%	-5.0%
j2 Global	-0.6%	22.8%
RingCentral	-12.6%	-12.9%
Twilio	NA	-55.2%
Vonage	19.3%	3.6%
West Corporation	14.8%	12.1%

Revenue Multiple Trends



Company Revenue Multiples

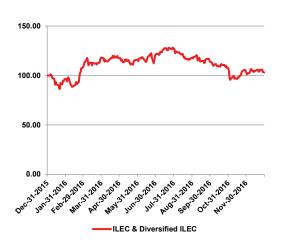
	12/31/2016	12/31/2015
Hosted & Managed Services Index	3.2x	3.0x
8x8	4.8x	4.5x
Glowpoint	0.9x	1.1x
j2 Global	5.1x	5.9x
RingCentral	3.8x	5.3x
Twilio	9.2x	NA
Vonage	1.9x	1.6x
West Corporation	2.2x	2.2x

EBITDA Multiple Trends



Company EBITDA Multiples

	12/31/2016	12/31/2015
Hosted & Managed Services Index	15.0x	12.8x
8x8	255.7x	203.8x
Glowpoint	338.2x	22.6x
j2 Global	12.1x	14.5xx
RingCentral	NM	NM
Twilio	NM	NM
Vonage	17.1x	15.1x
West Corporation	7.9x	7.7x



Company Returns

	12 Month	3 Month
ILEC & Diversified ILEC Index	3.0%	-9.5%
Alaska Communications Systems	-6.3%	-4.7%
CS&L	36.0%	-19.1%
Consolidated Communications	28.2%	6.4%
Cincinnati Bell	24.2%	9.6%
Frontier	-27.6%	-18.8%
Lumos Networks	39.5%	11.6%
Otelco	-9.7%	48.4%
Telephone & Data Systems	11.5%	6.2%

Revenue Multiple Trends



Company Revenue Multiples

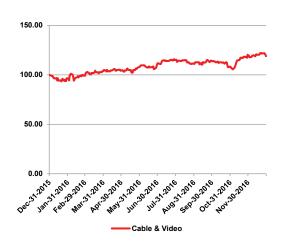
	12/31/2016	12/31/2015
ILEC & Diversified ILEC Index	2.5x	2.7x
Alaska Communications Systems	1.1x	1.0x
CS&L	8.2x	8.6x
Consolidated Communications	3.6x	3.2x
Cincinnati Bell	1.9x	1.8x
Frontier	2.7x	3.7x
Lumos Networks	3.7x	2.9x
Otelco	1.5x	1.7x
Telephone & Data Systems	1.0x	0.9x

EBITDA Multiple Trends



Company EBITDA Multiples

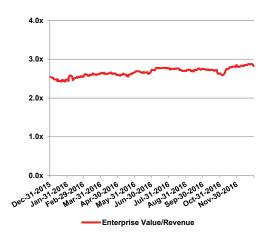
	12/31/2016	12/31/2015
ILEC & Diversified ILEC Index	7.1x	8.5x
Alaska Communications Systems	6.1x	7.5x
CS&L	9.0x	9.2x
Consolidated Communications	10.1x	8.9x
Cincinnati Bell	8.0x	7.5x
Frontier	7.0x	9.0x
Lumos Networks	9.1x	7.1x
Otelco	3.8x	4.2x
Telephone & Data Systems	5.5x	4.7x



Company Returns

	12 Month	3 Month
Cable & Video Index	18.9%	4.4%
Charter Communications	NA	19.7%
Comcast	22.4%	4.1%
Dish Network	1.3%	5.8%
General Communication	-1.7%	41.5%

Revenue Multiple Trends



Company Revenue Multiples

	12/31/2016	12/31/2015
Cable & Video Index	2.8x	2.5x
Charter Communications	7.0x	NA
Comcast	2.9x	2.5x
Dish Network	2.6x	2.6x
General Communication	2.1x	2.2x

EBITDA Multiple Trends



Company EBITDA Multiples

	12/31/2016	12/31/2015
Cable & Video Index	9.2x	8.2x
Charter Communications	20.1x	NA
Comcast	8.7x	7.4x
Dish Network	12.3x	13.1x
General Communication	7.1x	6.8x

FOCUS Telecom Technology and Services Team

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Rich Pierce has more than ten years of investment banking experience advising middle market clients on a variety of mergers and acquisitions and capital raising transactions. Dur-

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John Bradshaw has over 30 years experience in sales, marketing, manufacturing, finance, and systems engineering with corporations specializing in technology-driven business products and services. Mr. Bradshaw has been a successful

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David Freeland, a FOCUS Principal, has more than fifteen years of experience providing investment banking and management consulting services to a variety of corporate clients, ranging from the Fortune 500 to start-up businesses. He has been an

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Eric Oganesoff has conducted over forty M&A, debt, and capital raise transactions with an aggregate value of over \$300 million and has served as the CEO or President of several companies. Mr. Oganesoff has over twenty years of senior executive level

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FOCUS Investment Banking LLC provides a range of middle market investment banking services with an emphasis on mergers, acquisitions, divestitures and corporate finance. FOCUS is a national firm serving clients from offices in major cities across the United States. FOCUS specializes in business units with transactions or revenues in the \$5-300 million range, serving entrepreneurs, corporate owners and various types of investors across a broad range of industries, throughout the U.S. and worldwide. 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 and member FINRA/SIPC. For more information on FOCUS, visit www.focusbankers.com.

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