# FOCUS Telecom Technology and Services Group

# Carrier-Focused Telecom Technology Quarterly

Fall 2019 Report

Vol.9, No.3

# **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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# Carrier-Focused Telecom Technology Quarterly

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

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.

In 2019, members of the FOCUS Telecom team will be attending many conferences and meetings throughout the U.S. and are always delighted to receive introductions to

innovative companies in the industry. We hope to see you at one of these events, and look forward to exploring your capital market needs as you continue to grow your enterprise.

#### **Sub Sector Definitions**

- Large Cap: Large, diversified companies with products across a variety of sub sectors
- OSS/BSS Software: Software systems that manage and bill the customer base and monitor and maintain telecom networks
- IP Networking: Carrier Ethernet switching, routers and IP Multimedia Subsystem ("IMS") components
- Wireline Access and Transport: DSL equipment, PON equipment and WDM-based transport
- Cable and Video: Products such as headends and servers that support video delivery as well as broadband products for cable networks
- Broadband Wireless: High capacity, fixed wireless equipment
- Test and Measurement: Equipment used by both service providers and manufacturers to test and monitor networks and equipment

### **Summary Comments**

#### **Public Markets**

The FOCUS Carrier-Focused Telecom Technology Index (CFTTI) had a second straight reporting period in negative territory with a three-month loss of 7.9%. This was despite strong positive returns in the broader indices of 6.3% in the S&P 500 and 6.8% in the NASDAQ. The loss this period was enough to put the CFTTI into negative territory for the full year period with a year-over-year loss of 1.3%. This performance was worse than the 0.9% gain in the S&P 500 over the corresponding time frame but slightly better than the 1.8% drop in the NASDAQ. Sector multiples are lower than they were at this same time last year. The sector revenue multiple fell from 2.4x to 2.2x, while the sector EBITDA multiple dropped from 15.0x to 12.0x.

#### Large Cap

The Large Cap sub sector was the primary culprit behind this period's decline in the CFTTI. The sub sector plummeted 9.7% in the past three months, making it the worst performing sub sector in the CFTTI over this period. Every single stock in the index was in negative territory, with Cisco and Ericsson both suffering double digit declines. The sub sector is also down 2.3% for the full year period. Losses were broad-based over this time frame as well with four of the five stocks trading lower than they were a year ago. The lone exception is ZTE, which enjoyed a year-over-year return of more than 40%. Sub sector multiples closed out the period at 2.3x revenue and 11.5x EBITDA. Both of these are lower than year-ago multiples of 2.4x revenue and 14.7x EBITDA

#### **OSS/BSS Software**

The OSS/BSS Software sub sector was able to continue its momentum from our last report and deliver a second straight period with a positive return. The sub sector had a three-month gain of 5.7%, largely due to strong gains at Amdocs, CSG Systems and Synchronoss. On the down side, Pareteum shed nearly half of its value this period while Evolving Systems, NetScout and Subex also suffered steep losses. The gains this period were just strong enough to bring the sub sector into the black for the full year with a gain of 0.9%. CSG Systems was also a strong performer over this time, as were Synchronoss and Tecnotree. Despite the overall gain in the sub sector index, multiples were actually down. The sub sector revenue multiple declined from 2.1x a year ago to 2.0x currently, while the sub sector EBITDA multiple fell from 14.2x to 12.9x over the same time period.

#### **IP Networking**

The IP Networking sub sector was tied for the CFTTI's best performing sub sector this period with a three-month gain of 17.5%. All three stocks in the index sported double digit gains, with Ribbon Communications taking the top position with a gain of 21.1%. The sub sector is also up 5.2% over the past year. The sub sector revenue multiple remained unchanged compared to last year at 1.5x. In addition, the sub sector now generates positive EBITDA and trades at an EBITDA multiple of 47.7x. At this time last year the sub sector had negative EBITDA so the multiple was "Not Meaningful".

#### Wireline Access and Transport

The Wireline Access and Transport sub sector also turned in a strong performance, jumping 12.9% in our fall reporting period. Transport vendors CIENA and Infinera led the way with gains of 17.1% and 71.4%, respectively, while Communications Systems also chipped in with a gain of 60.1%. Other names in the sub sector did not fare as well as ADTRAN fell more than 30% and ADVA fell slightly more than 15%. The sub sector is also up 2.8% for the full year, due primarily to strong gains at CIENA. Sub sector multiples held relatively steady compared to last year. The sub sector revenue multiple was unchanged at 1.4x, while the EBITDA multiple dipped slightly from 30.3x a year ago to 24.3x currently.

#### Cable and Video

After a tough summer reporting period, the Cable and Video sub sector bounced back nicely to earn a tie for best performing sub sector in the CFTTI this fall. The sub sector's 17.5% gain in the past three months was chiefly due to gains at Amino, Harmonic and NetGem, but every single company in the sub sector delivered a positive return. The period's gains still leave the sub sector deeply in the red for the full year period with a loss of 37.3%. These losses were clearly due to deteriorating financial performance as the sub sector revenue multiple held steady at 2.0x compared to a year ago and the sub sector EBITDA multiple actually increased from 12.2x to 32.8x over the same time frame.

#### **Broadband Wireless**

The Broadband Wireless sub sector continued to slide with a loss of 8.1% in the current reporting period. Aviat Networks was the only company in the index to deliver a positive return for the past three months. Even with the sub sector's difficulties, it was still able to welcome a new member with the successful IPO of Cambium Networks.

The sub sector is up slightly more than 20% for the full year period. However, the sub sector relinquished its title as the top performing sub sector in the CFTTI over the past twelve months, a title it has held for our last several reports. Sub sector multiples ended the period at 4.1x revenue and 18.1x EBITDA. Both of these values are essentially in line with multiples from the year-ago period.

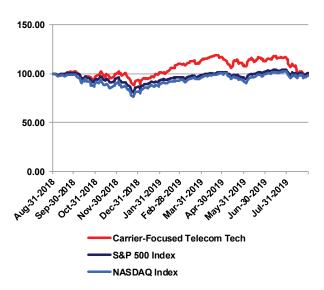
#### Test and Measurement

With a gain of 14.6% this reporting period, the Test and Measurement sub sector returned to the ranks of the

CFTTI's top performers. Three of the four companies in the sub sector enjoyed double digit gains. The exception was EXFO, which dropped 11.7% this period. This period's gain was good enough to vault the sub sector into the CFTTI's top position for the twelve- month period with a year-over-year gain of 24.1%. During this time frame the sub sector revenue multiple inched up slightly from 2.4x to 2.5x, while the sub sector EBITDA multiple fell from 18.7x to 15.1x.

#### Carrier-Focused Telecom Technology: Public Market Summary

#### **Twelve Month Index Returns**

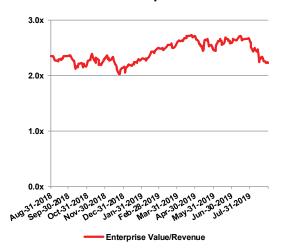


Source: Capital IQ

#### **Sector and Sub Sector Returns**

	12 Month	3 Month
Carrier-Focused Telecom Tech	-1.3%	-7.9%
Large Cap	-2.3%	-9.7%
OSS/BSS	0.9%	5.7%
IP Networking	5.2%	17.5%
Wireline Access and Transport	2.8%	12.9%
Cable and Video	-37.3%	17.5%
Broadband Wireless	20.7%	-8.1%
Test and Measurement	24.1%	14.6%
S&P 500	0.9%	6.3%
NASDAQ	-1.8%	6.8%

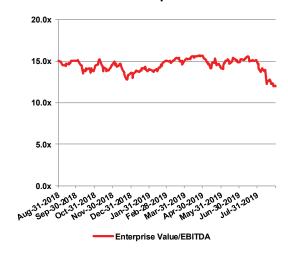
#### **Revenue Multiple Trends**



#### **Sector and Sub Sector Revenue Multiples**

	8/31/2019	8/31/2018
Carrier-Focused Telecom Tech	2.2x	2.4x
Large Cap	2.3x	2.4x
OSS/BSS	2.0x	2.1x
IP Networking	1.5x	1.5x
Wireline Access and Transport	1.4x	1.4x
Cable and Video	2.0x	2.0x
Broadband Wireless	4.1x	4.2x
Test and Measurement	2.5x	2.4x

#### **EBITDA Multiple Trends**



#### **Sector and Sub Sector EBITDA Multiples**

	8/31/2019	8/31/2018
Carrier-Focused Telecom Tech	12.0x	15.0x
Large Cap	11.5x	14.7x
OSS/BSS	12.9x	14.2x
IP Networking	47.7x	NM
Wireline Access and Transport	24.3x	30.3x
Cable and Video	32.8x	12.2x
Broadband Wireless	18.1x	18.2x
Test and Measurement	15.1x	18.7x

# Carrier-Focused Telecom Technology: M&A Summary

# Carrier-Focused Telecom Technology Stocks

#### M&A

M&A activity in the Carrier Focused Telecom Technology sector picked up slightly compared to our summer reporting period with a total of 11 transactions in the past three months. However, total announced transaction dollar volume remained very low at only \$172 million. For the yearto-date period, we count a total of 29 transactions with a total announced transaction dollar volume of \$481 million. This means that based on both the number of transactions and the dollar volume of transactions the overall pace of M&A activity in the sector is currently the lowest of any year in the last five.

#### **OSS/BSS Software**

Much of the pickup in sector M&A activity this period can be attributed to an increased number of transactions in the OSS/BSS Software sub sector. Perhaps the most notable acquisition in the sub sector was the acquisition of network and application experience management company Uhana by VMware. This the first time that VMware has made an acquisition in the OSS/BSS Software sub sector. In addition, private equity-backed Mobileum acquired revenue assurance and fraud management company WeDo Technologies. At a total purchase price of \$97 million, this was the largest announced M&A dollar volume transaction this period. The OSS/BSS Software sub sector also boasted the period's second largest dollar volume transaction with IMImobile's acquisition of 3Cinteractive for \$53 million. Finally, we noted that serial acquirer Constellation Software notched two acquisitions this period (Advantage 360 Software and MDS Group) while TEOCO also was back in acquisition mode with the purchase of quality of experience measurement company CIQUAL.

#### IP Networking

The single transaction in the IP Networking sub sector this period was the acquisition of Freeway Communications by telecom service provider Utility Telecom Group. Freeway Communications makes a softswitch for telecom carriers.

#### Wireline Access and Transport

The Wireline Access and Transport sub sector also had only a single transaction. This was the acquisition of optical transceiver company Integra Optics by Infinite Communications

#### Cable and Video

There were no transactions in the Cable and Video sub sector this period.

#### **Broadband Wireless**

There were no transactions in the Broadband Wireless sub sector this period.

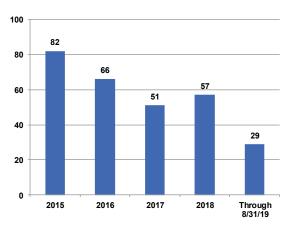
#### Test and Measurement

We counted two transactions in the Test and Measurement sub sector this period. The first of these was the Keysight Technologies acquisition of PRISMA Telecom Testing. PRISMA Telecom Testing makes testing equipment for wireless networks. The second transaction was the \$22 million purchase of wireless testing company Freedom Communications Technologies by Astronics.

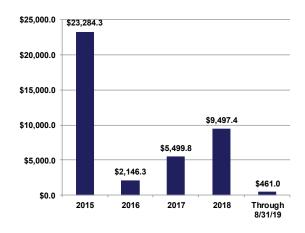
#### Transactions with Multiples

Once again we had two transactions with announced multiples for the reporting period. The first of these was in the OSS/BSS Software sub sector with the acquisition of 3Cinteractive by IMImobile. The revenue multiple for this transaction was 2.2x. The second transaction with an announced multiple was Astronics' purchase of Freedom Communications Technologies at a multiple of 2.0x revenue.

#### **M&A Activity: Number of Transactions**



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



#### **Announced Transactions (6/1/19 – 8/31/19)**

Acquiror	Target	Date Announced	Sector	Purchase Price	Description
Utility Telecom Group	Freeway Communications	8/9/19	IP Networking	NA	Suite of voice over Internet protocol internetworking products for service providers including a softswitch platform.
VMware	Uhana	7/25/19	OSS/BSS Software	NA	Al-based mobile network and application experience management SaaS for mobile carrier networks.
IMImobile	3Cinteractive	7/24/19	OSS/BSS Software	\$53.2	Mobile application deployment SaaS for businesses and wireless telecom service providers.
Constellation Software	MDS Group	7/17/19	OSS/BSS Software	NA	ERP SaaS for telecommunications service providers that enables revenue management, business assurance and analytics.
Mobileum	WeDo Technologies	7/11/19	OSS/BSS Software	\$97.0	Revenue assurance and fraud management software solutions for telecom, media and technology organizations.
Astronics	Freedom Communication Technologies	7/1/19	Test and Measurement	\$22.0	Communication test equipment for land-based mobile radio and long-term evolution high-speed wireless communications networks.
Keysight Technologies	PRISMA Telecom Testing	6/18/19	Test and Measurement	NA	Manufactures network testing equipment for the wireless telecommunication network industry.
Elisa	Polystar OSIX	6/10/19	OSS/BSS Software	NA	Provides network monitoring, optimization and analytics software for wireless carriers.
Infinite Electronics	Integra Optics	6/5/19	Wireline Access and Transport	NA	Carrier-grade optical transceivers and components to telecom companies, cable providers and data centers.
TEOCO Corporation	CIQUAL	6/4/19	OSS/BSS Software	NA	Quality of experience mobile service analytics and reporting SaaS for the wireless telecom sector.
Constellation Software	Advantage 360 Software	6/2/19	OSS/BSS Software	NA	Customer management, point of sales, accounting, mediation, fulfilment and assurance functions for smaller telecom operators.

#### Announced Transactions with Revenue Multiples (9/1/18 – 8/31/19)

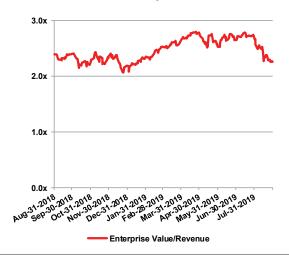
Acquiror	Target	Date Announced	Sector	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
IMImobile	3Cinteractive	7/24/19	OSS/BSS Software	\$53.2	2.2 x	NA	Mobile application deployment SaaS for businesses and wireless telecom service providers.
Astronics	Freedom Communication Technologies	7/1/19	Test and Measurement	\$22.0	2.0 x	NA	Communication test equipment for land-based mobile radio and long-term evolution high-speed wireless communications networks.
Hansen Technologies	Sigma Systems	5/1/19	OSS/BSS Software	\$118.0	2.1 x	8.4 x	Software for cable and telecom service providers for service fulfillment and management, device provisioning and service mediation.
Enghouse Systems	Espial Group	3/25/19	Cable and Video	\$17.2	0.9 x	NM	Provides IPTV and set-top box middleware, video-on-demand management and delivery software and TV Web browser software.
SeaChange International	Xstream	2/11/19	Cable and Video	\$5.5	0.9 x	NA	Provides over-the-top content and authenticated streaming online video management and distribution SaaS.
Boku	Danal	12/6/18	OSS/BSS Software	\$61.3	12.0 x	NM	Mobile identity and access management, authentication, carrier billing and payments apps for mobile telecom service providers.
Inside Secure	Verimatrix	12/5/18	Cable and Video	\$158.0	2.0 x	10.9 x	Provides IPTV content encryption and digital rights management SaaS for cable and IPTV service providers.
CommScope	ARRIS	11/8/18	Cable and Video	\$7,621.2	1.1 x	9.3 x	Networking hardware and software for cable TV service providers including routers, encoders, amplifiers, access points and gateways.



#### **Company Returns**

	12 Month	3 Month
Large Cap Index	-2.3%	-9.7%
Cisco	-2.0%	-10.0%
Ericsson	-6.8%	-18.9%
Juniper	-18.5%	-5.9%
Nokia	-11.1%	-0.9%
ZTE	44.1%	-3.3%

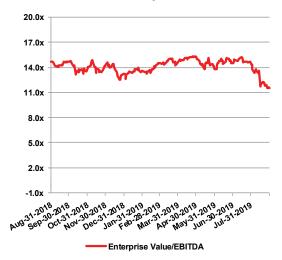
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

	8/31/2019	8/31/2018
Large Cap Index	2.3x	2.4x
Cisco	3.7x	4.1x
Ericsson	1.1x	1.2x
Juniper	1.6x	1.8x
Nokia	1.1x	1.1x
ZTE	1.3x	0.8x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

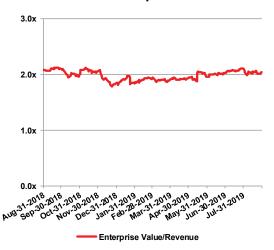
	8/31/2019	8/31/2018
Large Cap Index	11.5x	14.7x
Cisco	11.6x	13.8x
Ericsson	10.7x	115.8x
Juniper	9.8x	9.6x
Nokia	9.4x	9.6x
ZTE	19.3x	48.9x



#### **Company Returns**

	12 Month	3 Month
OSS/BSS Index	0.9%	5.7%
Amdocs	-0.8%	9.0%
CSG Systems	44.3%	20.1%
Evolving Systems	-64.8%	-9.1%
NetScout	-11.4%	-9.6%
Optiva	-10.7%	7.2%
Pareteum	-22.5%	-45.4%
Radcom	-48.6%	8.7%
Subex	-5.5%	-24.3%
Synchronoss	27.6%	24.8%
Tecnotree	28.2%	17.9%

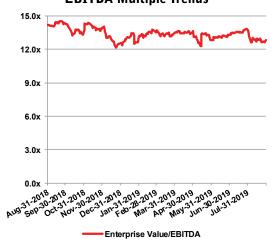




#### **Company Revenue Multiples**

	8/31/2019	8/31/2018
OSS/BSS Index	2.0x	2.1x
Amdocs	2.1x	2.2x
CSG Systems	2.1x	1.7x
Evolving Systems	0.4x	0.8x
NetScout Systems	2.0x	2.2x
Optiva	1.9x	1.5x
Pareteum	3.3x	8.4x
Radcom	2.8x	4.2x
Subex	0.7x	0.9x
Synchronoss	1.7x	1.3x
Tecnotree	0.7x	0.5x

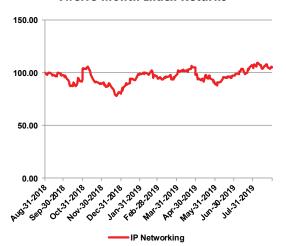
#### **EBITDA Multiple Trends**



Source: Capital IQ

#### **Company EBITDA Multiples**

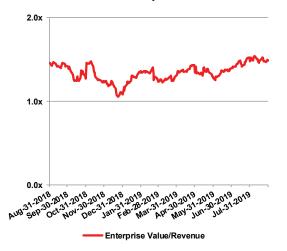
• •	-	
	8/31/2019	8/31/2018
OSS/BSS Index	12.9x	14.2x
Amdocs	11.1x	11.9x
CSG Systems	12.8x	10.4x
Evolving Systems	11.7x	5.7x
NetScout Systems	13.6x	14.5x
Optiva	33.2x	NM
Pareteum	99.7x	NM
Radcom	NM	38.6x
Subex	4.2x	6.8x
Synchronoss	NM	NM
Tecnotree	2.3x	3.5x



#### **Company Returns**

	12 Month	3 Month
IP Networking Index	5.2%	17.5%
Allot Communications	23.5%	12.1%
Audiocodes	64.5%	16.6%
Ribbon Communications	-25.3%	21.1%

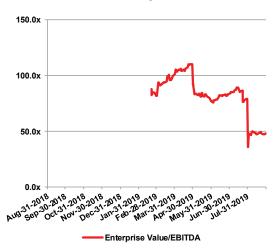
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

	8/31/2019	8/31/2018
IP Networking Index	1.5x	1.5x
Allot Communications	1.6x	1.2x
Audiocodes	2.6x	1.6x
Ribbon Communications	1.1x	1.5x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

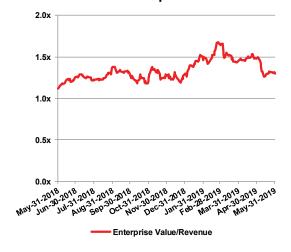
	8/31/2019	8/31/2018
IP Networking Index	47.7x	NM
Allot Communications	NM	NM
Audiocodes	21.2x	17.9x
Ribbon Communications	59.1x	NM



#### **Company Returns**

	12 Month	3 Month
Wireline Access & Transport Index	2.8%	12.9%
ADTRAN	-40.3%	-34.5%
ADVA	-19.9%	-15.5%
BATM	9.1%	-5.4%
Calix	-22.9%	-0.7%
CIENA	29.6%	17.1%
Communications Systems	32.5%	60.1%
Dasan Zhone Solutions	-1.6%	-18.4%
Infinera	-40.4%	71.4%
Net Insight	-58.3%	-8.3%

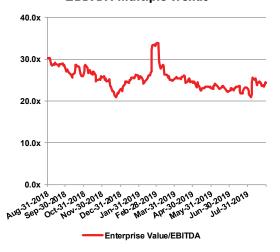
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

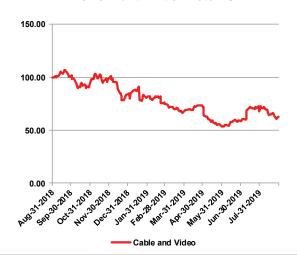
	8/31/2019	8/31/2018
Wireline Access & Transport Index	1.4x	1.4x
ADTRAN	0.7x	1.3x
ADVA	0.7x	0.8x
BATM	2.1x	1.7x
Calix	0.8x	0.8x
CIENA	1.8x	1.5x
Communications Systems	0.4x	0.2x
DASAN Zhone Solutions	0.8x	0.8x
Infinera	1.1x	1.6x
Net Insight	1.3x	2.7x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

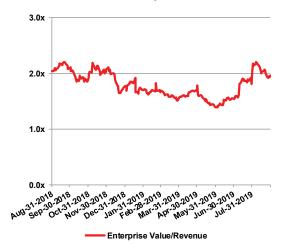
	8/31/2019	8/31/2018
Wireline Access & Transport Index	24.3x	30.3x
ADTRAN	138.4x	NM
ADVA	9.0x	13.5x
BATM	43.4x	82.4x
Calix	NM	NM
CIENA	12.5x	14.0x
Communications Systems	118.1x	NM
DASAN Zhone Solutions	21.3x	21.0x
Infinera	NM	NM
Net Insight	NM	183.4x



#### **Company Returns**

	12 Month	3 Month
Cable and Video Index	-37.3%	17.5%
Amino	-44.9%	22.5%
Casa Systems	-60.8%	2.5%
Harmonic	20.9%	26.2%
NetGem	-49.7%	0.3%
SeaChange	40.6%	82.7%

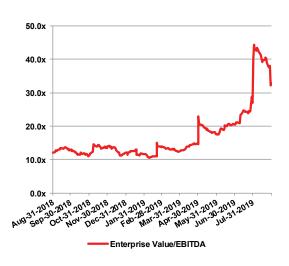
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

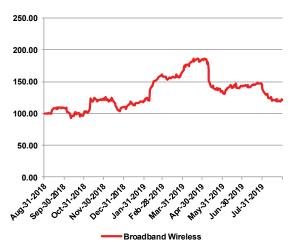
	8/31/2019	8/31/2018
Cable and Video Index	2.0x	2.0x
Amino	1.1x	2.0x
Casa Systems	2.9x	3.3x
Harmonic	1.9x	1.4x
NetGem	0.7x	0.9x
SeaChange	1.2x	0.2x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

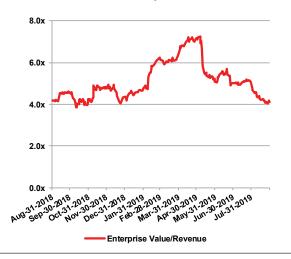
	8/31/2019	8/31/2018
Cable and Video Index	32.8x	12.2x
Amino	9.6x	21.7x
Casa Systems	16.1x	8.6x
Harmonic	73.1x	51.8x
NetGem	16.7x	9.2x
SeaChange	NM	NM



#### **Company Returns**

	12 Month	3 Month
Broadband Wireless Index	20.7%	-8.1%
Aviat Networks	-20.8%	5.3%
Cambium Networks	NA	NA
Ceragon Networks	-30.7%	-19.1%
Redline Communications	-24.4%	-4.4%
Ubiquiti Networks	23.2%	-8.1%

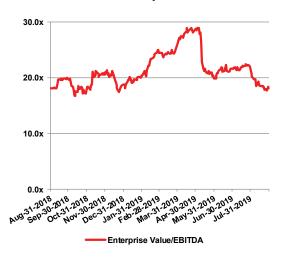
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

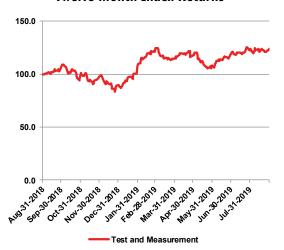
	8/31/2019	8/31/2018
Broadband Wireless Index	4.1x	4.2x
Aviat Networks	0.2x	0.3x
Cambium Networks	1.0x	NA
Ceragon Networks	0.5x	0.7x
Redline Communications	0.5x	0.5x
Ubiquiti Networks	6.7x	6.4x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

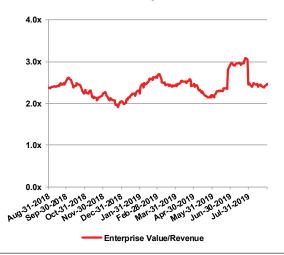
	8/31/2019	8/31/2018
Broadband Wireless Index	18.1x	18.2x
Aviat Networks	8.0x	8.6x
Cambium Networks	85.5x	NA
Ceragon Networks	5.3x	7.1x
Redline Communications	NM	5067.4x
Ubiquiti Networks	18.5x	19.4x



#### **Company Returns**

	12 Month	3 Month
Test and Measurement Index	24.1%	14.6%
Anritsu	19.2%	17.1%
EXF0	-17.3%	-11.7%
Spirent	46.6%	13.7%
Viavi	24.0%	15.3%

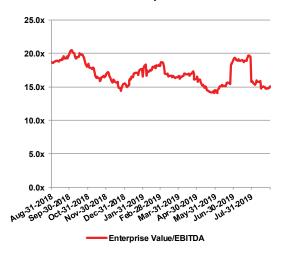
#### **Revenue Multiple Trends**



#### **Company Revenue Multiples**

	8/31/2019	8/31/2018
Test and Measurement Index	2.5x	2.4x
Anritsu	2.4x	2.5x
EXF0	0.7x	0.9x
Spirent	2.6x	1.9x
Viavi	2.9x	3.0x

#### **EBITDA Multiple Trends**



#### **Company EBITDA Multiples**

	8/31/2019	8/31/2018
Test and Measurement Index	15.1x	18.7x
Anritsu	14.8x	19.0x
EXF0	9.7x	17.1x
Spirent	14.2x	11.3x
Viavi	16.2x	24.4x

# FOCUS Telecom Technology and Services Team



Richard H. Pierce
Managing Director and Telecom
Technology and Services Team Leader,
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Rich Pierce has more than 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.



**David Freeland** *Managing Director*,
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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

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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