

# FOCUS

Investment Banking

Telecom Technology and Services Group

## Carrier-Focused Telecom Technology 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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# Carrier-Focused Telecom Technology Quarterly

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

FOCUS believes that the Carrier-Focused Telecom Technology sector is one of the most important in Telecom. As communications service providers struggle to keep up with ever increasing demand from their data hungry customers, they are turning to their technology partners to help them satisfy these needs in a cost-effective way. In addition to simply increasing the capacity of both wireline and wireless networks, companies in the Carrier-Focused Telecom Technology sector are also helping customers perform a variety of other critical functions including network planning and optimization, network monitoring, service assurance, network testing and service delivery and monetization. While some of the largest technology companies in the world are helping to meet many of these challenges, we believe there is significant innovation among middle market technology providers and ample opportunities for them to create meaningful value for their shareholders. FOCUS is proud of its commitment to the Carrier-Focused Telecom Technology sector and we are excited about the prospects for middle market companies in this space.

The FOCUS Telecom Technology and Services group consists of professionals with substantial expertise in both Telecom and investment banking. 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 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 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

FOCUS' Carrier-Focused Telecom Technology Index (CFTTI) recouped some of the previous quarter's 1.3% loss with a gain of 0.5% in the past three months. The CFTTI continues to underperform relative to the broader market, with the S&P 500 up 3.5% and the NASDAQ up 3.6% over the corresponding time period. The sector remains in positive territory for the full year with a 12-month gain of 4.1%. Even so, this gain significantly underperformed both the 15.3% gain in the S&P 500 and the 40.8% gain in NASDAQ over the past year. Multiple performance for the CFTTI is mixed. The sector revenue multiple held steady at 2.2x from the year-ago period, while the sector EBITDA multiple declined from 11.5x to 11.1x.

## Large Cap

The Large Cap sub sector was one of three declining sub sectors in the past three months, falling 0.8%. Three out of the five members of the sub sector showed losses, led by Nokia falling 17.8% and Juniper falling 12.9%. Cisco and Ericsson both achieved positive returns of 1.9% and 5.1%, respectively. The sub sector improved modestly over the past 12 months with a gain of 2.3%. This was driven largely by gains at Ericsson (up 35.4%) and ZTE (up 20.9%). The Large Cap sub sector's revenue multiple held constant with year-ago levels at 2.2x, while the EBITDA multiple fell to 10.5x from a year-ago level of 10.8x.

## OSS/BSS Software

With a 5.3% gain in the past three months, the OSS/BSS software sub sector bounced back from its 1.8% loss in the fall reporting period. Leading the rebound was Evolving Systems (up 55.7%), Subex (up 112.2%), and Tecnotree (up 16.6%). On the other hand, four members of the index showed negative returns, including Optiva (down 14.6%), Pareteum (down 43.7%), and Synchronoss (down 32.6%). Despite a relatively strong three months, the sub sector is down 6.5% for the full year with seven of the 10 companies in the index in negative territory. Sub sector multiples fell and ended the period at 2.0x revenue (compared to 2.1x a year ago) and 10.4x EBITDA (compared to 12.5x a year ago).

## IP Networking

IP Networking was the CFTTI's second strongest performing sub sector in the past three months with a return of 11.8%. Two of the three companies in the index showed negative returns, but a 60.3% gain at Ribbon Communications pulled the sub sector firmly into the black. The sub sector is up nearly 45% compared to this time last year, making it the strongest sub sector in the CFTTI over this time period. Similar to the broader CFTTI, multiple performance was mixed, with the revenue multiple increasing from 1.5x to 2.2x and the EBITDA multiple decreasing from 16.8x to 16.7x.

## Wireline Access and Transport

The Wireline Access and Transport sub sector ended its hot streak of two straight quarters of double-digit returns with a 12.2% loss. This made it the CFTTI's worst performing sub sector over these past three months. Company returns were mixed with five of the nine stocks in the sub sector showing a negative return. Despite the poor quarter, the sub sector is up over 30% for the 12-month period, making it the second strongest performing CFTTI sub sector over this time frame. The sub sector revenue multiple is up compared to last year, increasing from 1.4x to 1.7x. However, the EBITDA multiple declined sharply from 20.5x a year ago to 15.0x currently.

## Cable and Video

The Cable and Video sub sector picked up where it left off in our fall reporting period, delivering a strong gain of 7.5% over the past three months. This gain was again led by Casa Systems and Harmonic, as Amino, Netgem, and SeaChange showed more losses. The sub sector still remains over 7% lower than it was a year ago. Over this time period it was Harmonic (down 20.9%) and SeaChange (down 72.4%) that were primarily responsible for the sub sector's negative year-over-year performance. Sub sector multiples also fell to 1.6x revenue and 22.5x EBITDA. This compares to sub sector multiples of 1.9x revenue and 26.0x EBITDA in the year-ago period.

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## Broadband Wireless

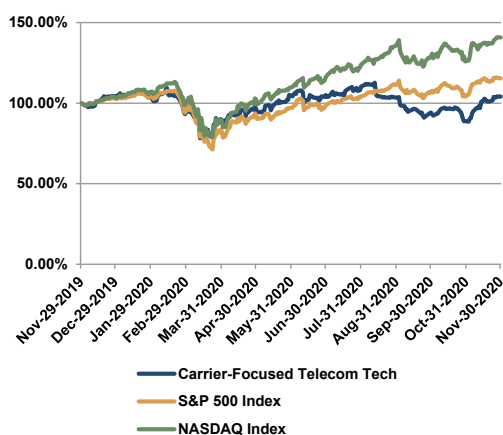
The Broadband Wireless sub sector was the CFTTI's strongest performer in the past three months, surging 38.4%. Four of the five sub sector companies earned positive returns, led by Cambium Networks (up 107.4%) and Aviat Networks (up 66.6%). Redline Communications (down 26%) was the lone negative return for the period. For the full year, the sub sector is up slightly more than 30%, among the best performing sub sectors in the CFTTI over this time frame. This included a 273% increase at Cambium Networks, giving it one of the highest year-over-year returns in the entire CFTTI. Sub sector multiples closed out the period at 7.7x revenue and 27.7x EBITDA. Both of these are higher than year-ago values of 6.8x revenue and 27.6x EBITDA.

## Test and Measurement

The last of the three sub sectors to post a decline in our winter reporting period, the Test and Measurement sub sector was the CFTTI's second poorest performer with a modest loss of 0.9%. EXFO (down 18.7%) and Spirent (down 11.4%), displayed strong negative returns. However, Anritsu (up 4.3%) and Viavi (up 1.6%) nearly offset these losses. The sub sector is up 6.7% compared to last year, with gains at Anritsu and Spirent overcoming losses at EXFO and Viavi. Sub sector multiples display mixed results from a year ago with the revenue multiple increasing (going from 2.6x to 2.7) and the EBITDA multiple decreasing (going from 15.2x to 13.1x). While it is always disappointing to see EBITDA multiples decrease, the silver lining is that it points to improving margins for the sub sector.

# Carrier-Focused Telecom Technology: Public Market Summary

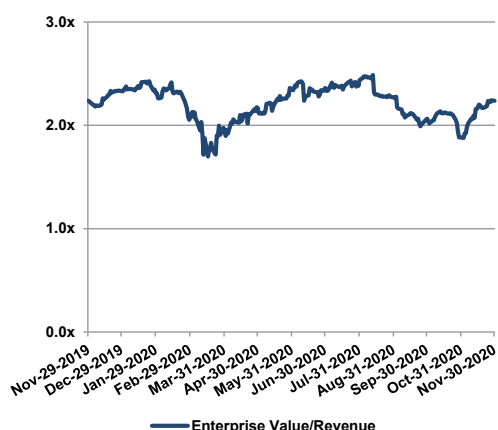
## Twelve Month Index Returns



## Sector and Sub Sector Returns

	12 Month	3 Month
Carrier-Focused Telecom Tech	4.1%	0.5%
Large Cap	2.3%	-0.8%
OSS/BSS	-6.5%	5.3%
IP Networking	44.3%	11.8%
Wireline Access and Transport	30.3%	-12.2%
Cable and Video	-7.1%	7.5%
Broadband Wireless	30.1%	38.4%
Test and Measurement	6.7%	-0.9%
S&P 500	15.3%	3.5%
NASDAQ	40.8%	3.6%

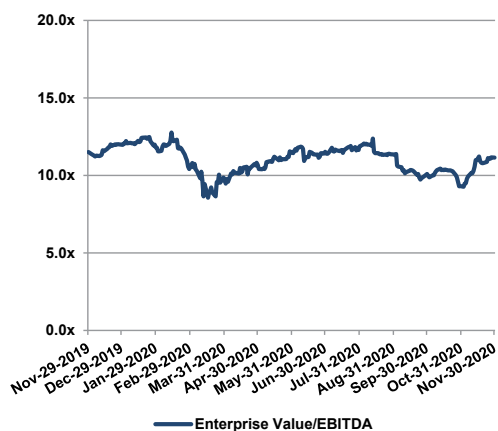
## Revenue Multiple Trends



## Sector and Sub Sector Revenue Multiples

	11/30/2020	11/30/2019
Carrier-Focused Telecom Tech	2.2x	2.2x
Large Cap	2.2x	2.2x
OSS/BSS	2.0x	2.1x
IP Networking	2.2x	1.5x
Wireline Access and Transport	1.7x	1.4x
Cable and Video	1.6x	1.9x
Broadband Wireless	7.7x	6.8x
Test and Measurement	2.7x	2.6x

## EBITDA Multiple Trends



## Sector and Sub Sector EBITDA Multiples

	11/30/2020	11/30/2019
Carrier-Focused Telecom Tech	11.1x	11.5x
Large Cap	10.5x	10.8x
OSS/BSS	10.4x	12.5x
IP Networking	16.7x	16.8x
Wireline Access and Transport	15.0x	20.5x
Cable and Video	22.5x	26.0x
Broadband Wireless	27.7x	27.6x
Test and Measurement	13.1x	15.2x

Source: Capital IQ

# M&A Summary Comments

## M&A

The winter reporting period experienced a break from the trend of rising M&A transaction volume in the Carrier-Focused Telecom Technology sector. For the second straight reporting period we counted a total of 13 transactions, but these deals accounted for a total announced transaction dollar volume of less than \$100 million. This represents less than half of the dollar volume of the previous three-month period. For the full year, we tally 47 total transactions for a total announced transaction dollar volume of \$462.9 million. Despite this low transaction dollar volume, this year has already surpassed the 40 transactions of 2019.

## OSS/BSS Software

With five transactions this period the OSS/BSS Software sub sector accounted for more than one third of the sector's transactions. The only transaction with an announced dollar value was ENEA's acquisition of Aptilo Networks for \$16.6 million. Pivot Partners notched an acquisition with its pickup of fiber network management firm COS Systems, while Juniper Networks acquired Netrounds to bolster its network testing and optimization capabilities. In the sub sector's final transaction that we will specifically note, Plume acquired Walleye Networks to improve the firm's smart home intellectual property.

## IP Networking

Commscope's acquisition of virtual radio access network company Phluido was the sole transaction in IP Networking this period.

## Wireline Access and Transport

The Wireline Access and Transport sub sector was home to the transaction with the largest announced dollar volume this period. This was Sterlite Technologies' \$33.7 million purchase of Italian fiber-to-the-home provider OPTOTEC. In addition, Sony Imaging Products & Solutions acquired Nevion to add to its portfolio of video transport solutions.

## Cable and Video

The Cable and Video sub sector saw two transactions in our winter reporting period. In the first of these, ATEME acquired Anevia for \$25.7 million. In addition, Agile Content made a tender offer to acquire publicly-traded Edgeware for \$17.9 million.

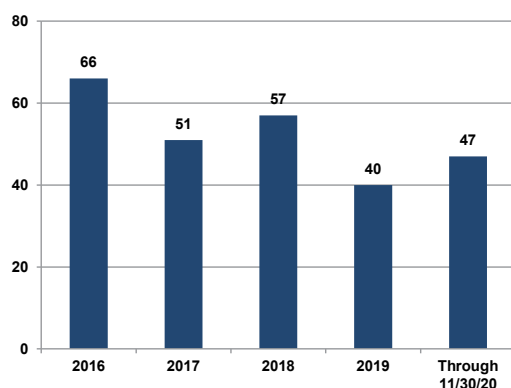
## Broadband Wireless

The lone transaction in the Broadband Wireless sub sector was the Mavenir Systems acquisition of small cell infrastructure firm ip.access.

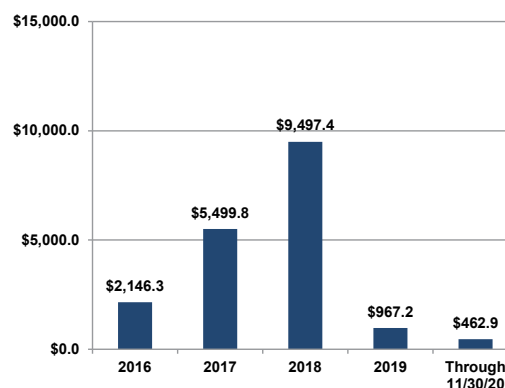
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## Carrier-Focused Telecom Technology: M&A Summary

M&A Activity: Number of Transactions



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



## Test and Measurement

In the Test and Measurement sub sector, EXFO acquired InOpticals and Luna Technologies acquired New Ridge Technologies.

## Transactions with Multiples

We were fortunate to have a total of four transactions with announced multiples in our winter reporting period. Two of these were in the Cable and Video sub sector. In the

first of these, the ATEME acquisition of Anevia went at a turn and a half of revenue (1.5x). The sub sector's second transaction, the Agile Content purchase of Edgware, was done at a significantly lower multiple of 0.9x revenue. In OSS/BSS Software, ENEA's acquisition of Aptilo Networks for 1.8x revenue represented the highest revenue multiple of any transaction this period. Finally, in the Wireline Access and Transport sub sector, the Sterlite Technologies purchase of OPTOTEC had a revenue multiple of 1.4x.

## M&A Announced Transactions (9/1/20 – 11/30/20)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
Plume	Walleye Networks	OSS/BSS Software	11/30/20	NA	Network intelligence capabilities for securing and protecting consumer home networking equipment.
Luna Technologies	New Ridge Technologies	Test and Measurement	11/2/20	NA	Test and measurement equipment that enables telecommunications and polarization-control applications.
Sterlite Technologies	OPTOTEC	Wireline Access and Transport	11/2/20	\$33.7	Fiber-to-the-home network products.
Agile Content	Edgware	Cable and Video	10/30/20	\$17.9	Solutions that enable telecom and cable operators as well as broadcasters to distribute TV and video content over the Internet.
CommScope	Phluido	IP Networking	10/19/20	NA	Software that provides features for cloud-based virtual radio access network virtualization and disaggregation.
ATEME	Anevia	Cable and Video	10/6/20	\$25.7	Provides OTT and IPTV encoding and streaming content delivery software for broadcasters, pay-tv operators and other businesses.
j2 Global	SpatialBuzz	OSS/BSS Software	10/6/20	NA	Combines customer feedback with device radio measurements to help operators find, prioritize and fix network problems.
Pivot Partners	COS Systems	OSS/BSS Software	10/5/20	NA	Software solutions that help fiber network owners and operators to design, deploy and manage fiber networks.
ENEA	Aptilo Networks	OSS/BSS Software	10/1/20	\$16.6	Provides integrated Wi-Fi service management software for telecom operators, ISPs and other service providers.
Sony Imaging Products & Solutions	Nevion	Wireline Access and Transport	9/30/20	NA	Video transport solutions for broadcasters and telecom operators around the world utilizing CWDM/DWDM technology.
Mavenir Systems	ip.access	Broadband Wireless	9/28/20	NA	Small cells, location sensors and communications infrastructure equipment for the wireless telecommunications industry.
Juniper Networks	Netrounds	OSS/BSS Software	9/28/20	NA	Carrier network testing and optimization software for telecom operators focused on 5G networks, SD-WAN and datacenters.
EXFO	InOpticals	Test and Measurement	9/9/20	NA	High-speed test and measurement instruments including sampling oscilloscopes, bit-error rate testers and analyzers.



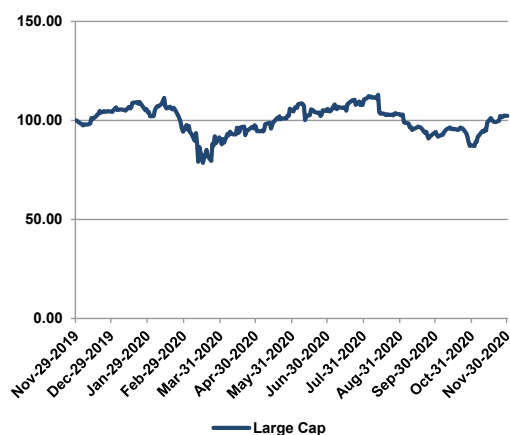
## M&A Announced Transactions with Revenue Multiples (12/1/19 – 11/30/20)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
Sterlite Technologies	OPTOTEC	Wireline Access and Transport	11/2/20	\$33.7	1.4 x	NA	Fiber-to-the-home network products.
Agile Content	Edgware	Cable and Video	10/30/20	\$17.9	0.9 x	NM	Solutions that enable telecom and cable operators as well as broadcasters to distribute TV and video content over the Internet.
ATEME	Anevia	Cable and Video	10/6/20	\$25.7	1.5 x	NA	Provides OTT and IPTV encoding and streaming content delivery software for broadcasters, pay-tv operators and other businesses.
ENEA	Aptilo Networks	OSS/BSS Software	10/1/20	\$16.6	1.8 x	NA	Provides integrated Wi-Fi service management software for telecom operators, ISPs and other service providers.
Amdocs	Openet	OSS/BSS Software	7/23/20	\$180.0	2.6 x	NA	Provider of 5G charging, policy and cloud technologies.
L&T Technology Services	Orchestra Technology	OSS/BSS Software	7/16/20	\$11.0	0.7 x	NA	Network performance management SaaS that measures, analyzes and manages devices, services and network KPIs.
S&T	Iskratel	Wireline Access and Transport	6/30/20	\$42.2	0.3 x	NA	Broadband access and optical network equipment, VoIP gateways and modems for telecom, railway, energy and public safety markets.
Etern Group	Beijing Etern Zhiyuan Network Technology	OSS/BSS Software	4/11/20	\$5.8	0.5 x	NA	Software for mobile operators for signaling collection analysis, business operation support and user behavior and security analysis.
Digital Turbine Media	Mobile Posse	OSS/BSS Software	2/10/20	\$66.0	1.1 x	5.2 x	Mobile content discovery solutions for wireless carriers that enable manufacturers to capitalize on the mobile advertising economy.
Single Digits	Billing Services Group (Wireless Business)	OSS/BSS Software	1/31/20	\$5.3	1.8 x	10.9 x	Roaming hub service that acts as a managed service for enabling interconnection between Wi-Fi networks.



## Sub Sector Analysis: Large Cap

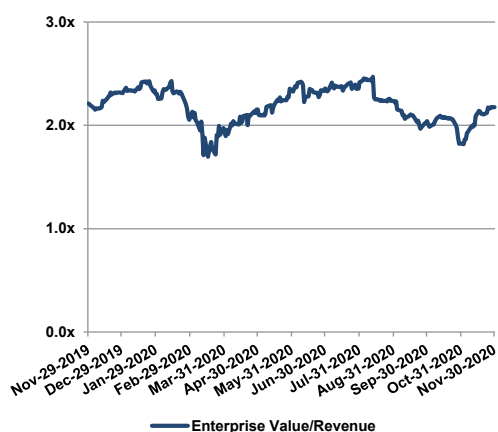
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Large Cap Index	2.3%	-0.8%
Cisco	-5.1%	1.9%
Ericsson	35.4%	5.1%
Juniper	-13.1%	-12.9%
Nokia	13.1%	-17.8%
ZTE	20.9%	-7.3%

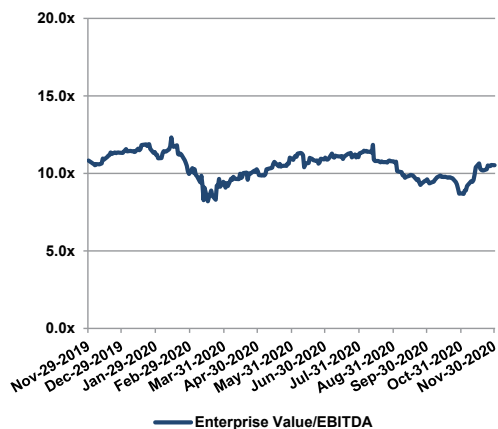
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
Large Cap Index	2.2x	2.2x
Cisco	3.5x	3.5x
Ericsson	1.6x	1.3x
Juniper	1.6x	1.8x
Nokia	0.8x	0.8x
ZTE	1.6x	1.5x

### EBITDA Multiple Trends



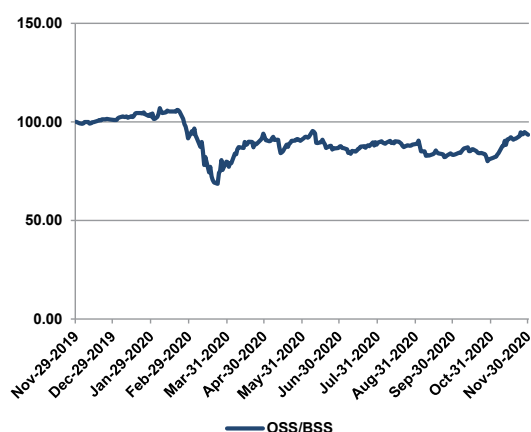
### Company EBITDA Multiples

	11/30/2020	11/30/2019
Large Cap Index	10.5x	10.8x
Cisco	11.0x	11.3x
Ericsson	12.2x	10.8x
Juniper	10.5x	11.3x
Nokia	6.6x	6.9x
ZTE	26.6x	16.6x

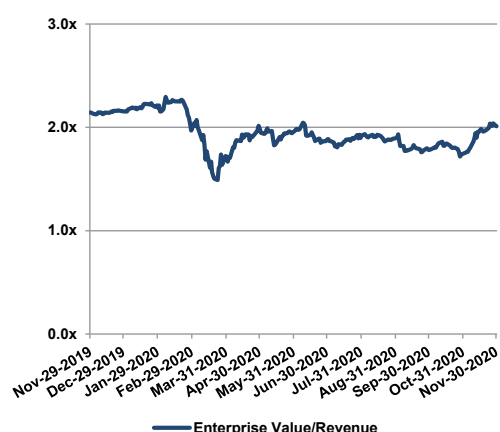
Source: Capital IQ

## Sub Sector Analysis: OSS/BSS Software

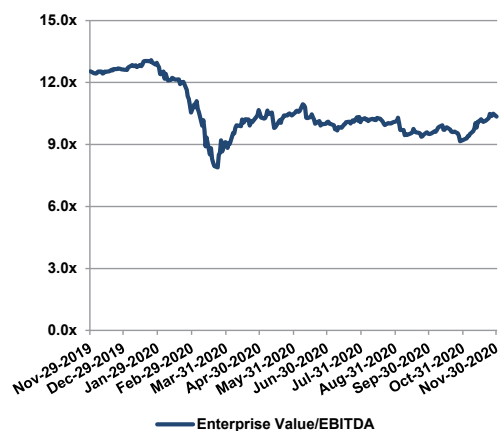
### Twelve Month Index Returns



### Revenue Multiple Trends



### EBITDA Multiple Trends



Source: Capital IQ

### Company Returns

	12 Month	3 Month
OSS/BSS Index	-6.5%	5.3%
Amdocs	-5.0%	7.5%
CSG Systems	-24.1%	1.9%
Evolving Systems	76.7%	55.7%
NetScout	-7.1%	1.2%
Optiva	-16.5%	-14.6%
Pareteum	-12.2%	-43.7%
Radcom	-8.9%	-4.9%
Subex	279.9%	112.2%
Synchronoss	-34.8%	-32.6%
Tecnotree	284.1%	16.6%

### Company Revenue Multiples

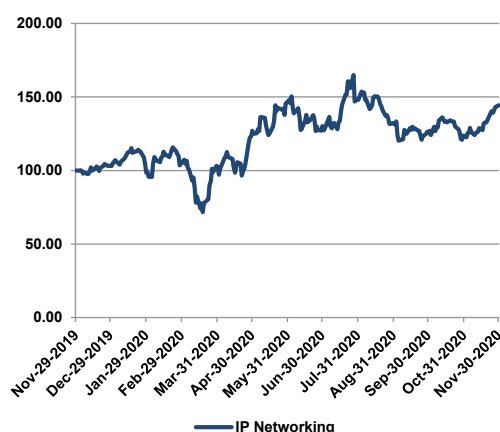
	11/30/2020	11/30/2019
OSS/BSS Index	2.0x	2.1x
Amdocs	2.1x	2.2x
CSG Systems	1.7x	2.1x
Evolving Systems	0.7x	0.4x
NetScout Systems	2.1x	2.4x
Optiva	3.0x	2.4x
Pareteum	0.9x	1.0x
Radcom	1.9x	2.8x
Subex	2.7x	0.8x
Synchronoss	1.2x	1.5x
Tecnotree	3.2x	1.2x

### Company EBITDA Multiples

	11/30/2020	11/30/2019
OSS/BSS Index	10.4x	12.5x
Amdocs	11.2x	11.6x
CSG Systems	10.0x	12.9x
Evolving Systems	10.7x	291.2x
NetScout Systems	12.1x	16.0x
Optiva	NM	16.0x
Pareteum	27.6x	30.2x
Radcom	NM	NM
Subex	10.2x	3.9x
Synchronoss	NM	NM
Tecnotree	9.5x	3.8x

## Sub Sector Analysis: IP Networking

### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
IP Networking Index	44.3%	11.8%
Allot Communications	12.2%	-7.2%
Audiocodes	16.7%	-10.8%
Ribbon Communications	134.1%	60.3%

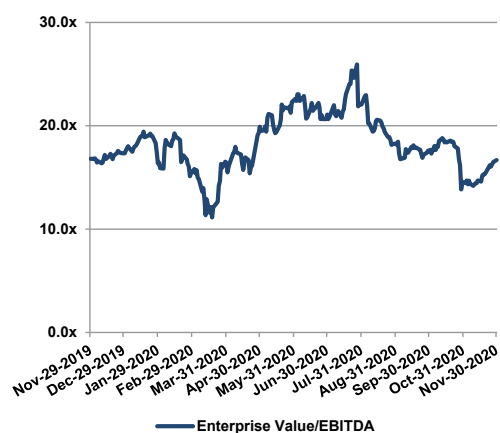
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
IP Networking Index	2.2x	1.5x
Allot Communications	1.9x	2.0x
Audiocodes	3.6x	3.5x
Ribbon Communications	1.8x	0.7x

### EBITDA Multiple Trends



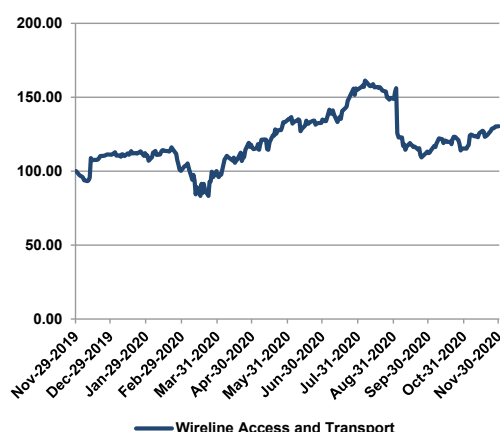
### Company EBITDA Multiples

	11/30/2020	11/30/2019
IP Networking Index	16.7x	16.8x
Allot Communications	NM	NM
Audiocodes	22.2x	28.0x
Ribbon Communications	20.9x	40.5x

Source: Capital IQ

## Sub Sector Analysis: Wireline Access and Transport

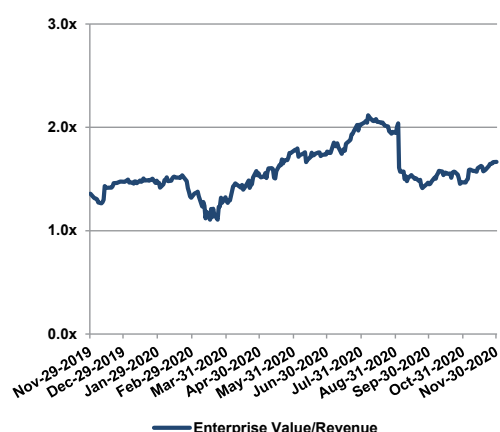
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Wireline Access & Transport Index	30.3%	-12.2%
ADTRAN	37.5%	13.9%
ADVA	-6.1%	-0.6%
BATM	109.7%	-35.1%
Calix	205.5%	21.7%
CIENA	18.0%	-21.1%
Communications Systems	-44.5%	-7.5%
Dasan Zhone Solutions	61.5%	23.5%
Infinera	32.6%	16.0%
Net Insight	-33.0%	-22.5%

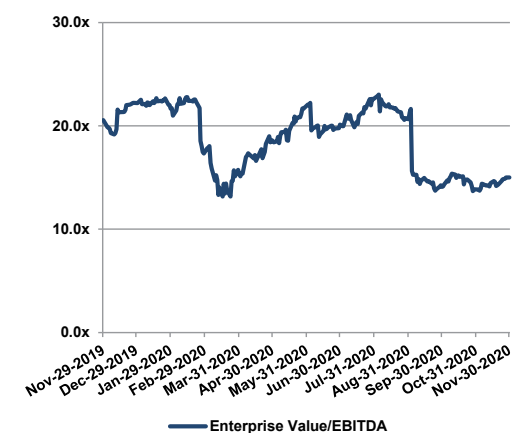
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
Wireline Access & Transport Index	1.7x	1.4x
ADTRAN	1.1x	0.6x
ADVA	0.7x	0.9x
BATM	3.3x	2.0x
Calix	2.8x	1.0x
CIENA	1.8x	1.6x
Communications Systems	0.6x	1.7x
DASAN Zhone Solutions	1.1x	0.6x
Infinera	1.5x	1.2x
Net Insight	1.0x	2.3x

### EBITDA Multiple Trends



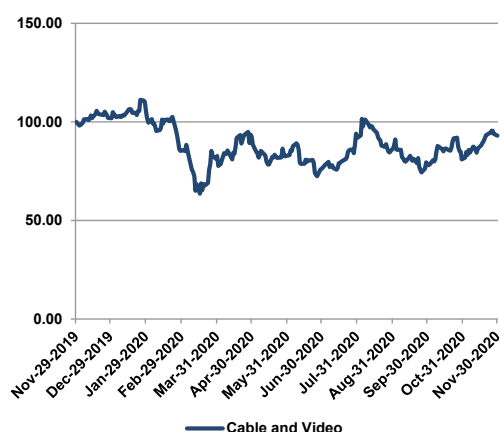
### Company EBITDA Multiples

	11/30/2020	11/30/2019
Wireline Access & Transport Index	15.0x	20.5x
ADTRAN	302.5x	NM
ADVA	8.6x	11.9x
BATM	281.2x	80.1x
Calix	44.8x	NM
CIENA	10.2x	11.5x
Communications Systems	340.8x	71.0x
DASAN Zhone Solutions	221.0x	51.5x
Infinera	NM	NM
Net Insight	NM	15.3x

Source: Capital IQ

## Sub Sector Analysis: Cable and Video

### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Cable and Video Index	-7.1%	7.5%
Amino	11.9%	-10.5%
Casa Systems	44.3%	16.7%
Harmonic	-20.9%	10.7%
NetGem	24.4%	-18.1%
SeaChange	-72.4%	-28.0%

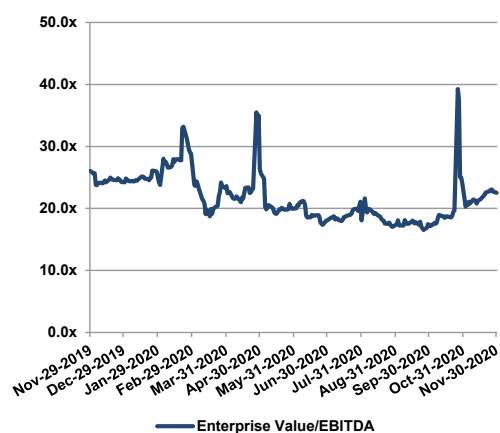
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
Cable and Video Index	1.6x	1.9x
Amino	1.5x	1.5x
Casa Systems	1.5x	1.9x
Harmonic	2.0x	2.2x
NetGem	0.9x	1.1x
SeaChange	0.7x	0.6x

### EBITDA Multiple Trends



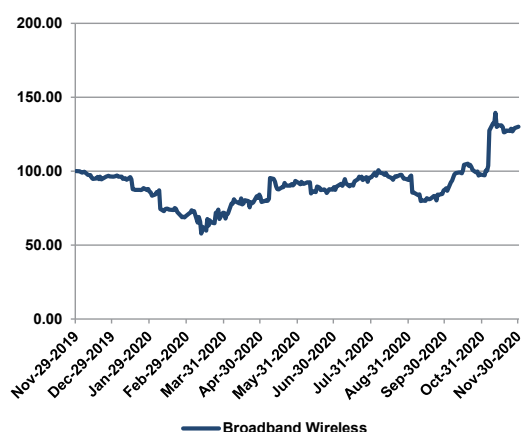
### Company EBITDA Multiples

	11/30/2020	11/30/2019
Cable and Video Index	22.5x	26.0x
Amino	16.2x	16.9x
Casa Systems	15.6x	19.6x
Harmonic	NM	NM
NetGem	2.3x	2.9x
SeaChange	NM	NM

Source: Capital IQ

## Sub Sector Analysis: Broadband Wireless

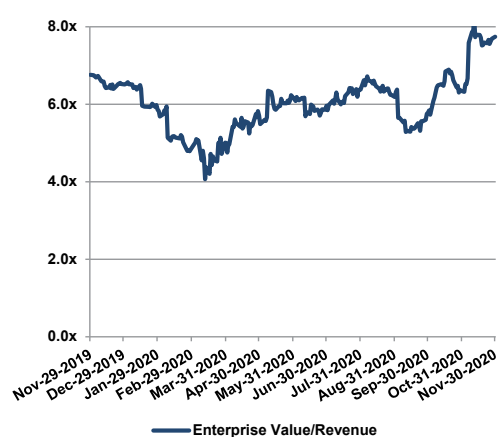
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Broadband Wireless Index	30.1%	38.4%
Aviat Networks	159.4%	66.6%
Cambium Networks	273.2%	107.4%
Ceragon Networks	37.8%	17.4%
Redline Communications	-56.0%	-26.0%
Ubiquiti Networks	25.8%	36.5%

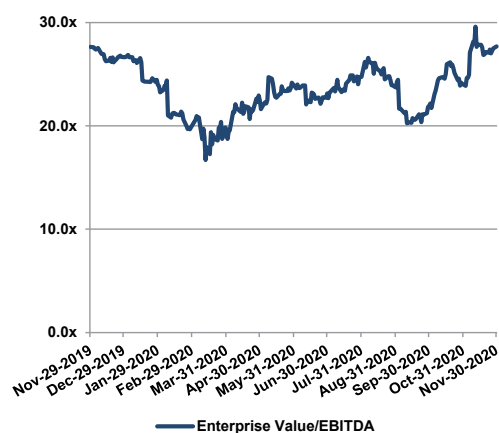
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
Broadband Wireless Index	7.7x	6.8x
Aviat Networks	0.7x	0.2x
Cambium Networks	2.7x	0.9x
Ceragon Networks	0.8x	0.5x
Redline Communications	0.1x	0.4x
Ubiquiti Networks	11.2x	11.1x

### EBITDA Multiple Trends



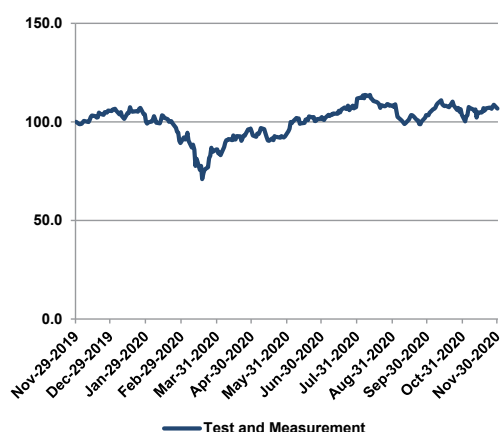
### Company EBITDA Multiples

	11/30/2020	11/30/2019
Broadband Wireless Index	27.7x	27.6x
Aviat Networks	10.3x	5.9x
Cambium Networks	29.5x	10.7x
Ceragon Networks	61.4x	6.2x
Redline Communications	NM	NM
Ubiquiti Networks	29.0x	30.2x

Source: Capital IQ

## Sub Sector Analysis: Test and Measurement

### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Test and Measurement Index	6.7%	-0.9%
Anritsu	20.0%	4.3%
EXFO	-34.7%	-18.7%
Spirent	26.4%	-11.4%
Viavi	-9.8%	1.6%

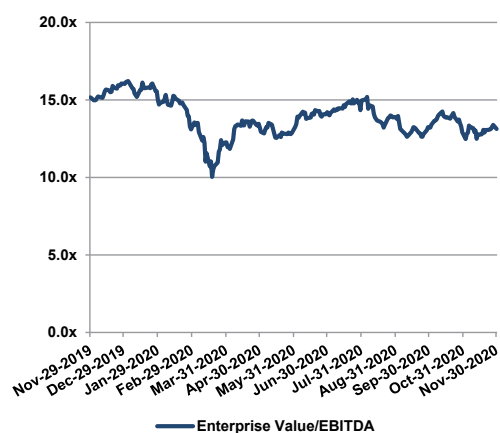
### Revenue Multiple Trends



### Company Revenue Multiples

	11/30/2020	11/30/2019
Test and Measurement Index	2.7x	2.6x
Anritsu	2.6x	2.4x
EXFO	0.7x	0.8x
Spirent	3.6x	3.1x
Viavi	2.8x	3.1x

### EBITDA Multiple Trends



### Company EBITDA Multiples

	11/30/2020	11/30/2019
Test and Measurement Index	13.1x	15.2x
Anritsu	11.1x	13.3x
EXFO	21.4x	11.5x
Spirent	15.4x	15.7x
Viavi	15.4x	18.1x

Source: Capital IQ



# FOCUS Telecom Technology and Services Team

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## **Richard H. Pierce**

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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 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 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.

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