

# 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) returned to the red this period with a three-month loss of 1.3%. This looks particularly bad in the context of the performance of the broader indices, with the S&P 500 up 15.0% and the NASDAQ up 24.1% over the corresponding time period. The sector still remains in positive territory for the full year with a 12-month gain of 3.1%. Even so, this gain significantly underperformed both the 19.9% gain in the S&P 500 and the 46.9% gain in NASDAQ over the past year. Multiple performance for the CFTTI is mixed. The sector revenue multiple ticked up slightly from 2.2x a year ago to 2.3x currently, while the sector EBITDA multiple declined from 11.9x to 11.3x.

## Large Cap

The primary reason for this period's decline in the CFTTI was the 2.3% loss in the Large Cap sub sector. Interestingly, the sub sector's woes were entirely attributable to an 11.7% decline at Cisco in the past three months. All of the other companies in the sub sector showed gains, including a 27.5% gain at Ericsson and a 22.8% gain at Nokia. The sub sector is essentially breakeven for the full year period with a loss of 0.1%. Cisco was once again the main culprit for the subpar performance with a year-over-year decline of 9.8%. Sub sector multiples are down from year-ago levels, with the revenue multiple falling from 2.3x to 2.2x and the EBITDA multiple declining from 11.5x to 10.8x.

## OSS/BSS Software

With a 1.8% drop in the past three months the OSS/BSS software sub sector was another component of the CFTTI that failed to deliver a positive return. The reason for this was negative performances at some of the larger market cap names in the space including Amdocs (down 1.7%), CSG Systems (down 10.1%) and NetScout (down 15.8%). A number of companies did show strong returns, including a 137.0% gain at Optiva in the wake of the announcement of a potential takeover offer. The sub sector is also down 6.6% for the full year with six of the 10 companies in the index in negative territory. As might be expected, sub sector multiples also fell and ended the period at 1.9x revenue (compared to 2.0x a year ago) and 10.1x EBITDA (compared to 12.2x a year ago).

## IP Networking

The final sub sector to experience a negative return this period was IP Networking, whose 8.6% decline made it the worst performing sub sector in our fall reporting period. All three companies in the sub sector saw their stock prices drop, with the steepest decline coming from Audiocodes. Even so, the sub sector is still up slightly more than 30% compared to this same time last year. 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 19.1x to 17.6x.

## Wireline Access and Transport

Moving to the period's success stories, the Wireline Access and Transport sub sector had a second straight period with a double-digit gain. Its 11.6% increase this past three months made it the CFTTI's second best performing sub sector. Gains were broad based with six of the nine stocks in the sub sector delivering a positive return. The sub sector is also up nearly 50% for the 12-month period, which once again is good enough to receive the silver medal for CFTTI sub sector performance. The sub sector revenue multiple is up sharply compared to last year, increasing from 1.4x to 1.9x. However, the EBITDA multiple declined somewhat from 21.4x a year ago to 20.6x currently.

## Cable and Video

The Cable and Video sub sector reversed its losses from our summer reporting period and turned in a solid gain of 4.9% over the past three months. Gains at Casa Systems and Harmonic more than offset losses at Amino and SeaChange. The sub sector still remains nearly 13% lower than it was a year ago. Over this time period it was Casa Systems (down 21.0%) and Harmonic (down 10.5%) that were primarily responsible for the sub sector's negative year-over-year performance. Sub sector multiples also fell to 1.5x revenue and 18.3x EBITDA. This compares to sub sector multiples of 2.0x revenue and 25.8x EBITDA in the year-ago period.

## Broadband Wireless

After a big increase in our last reporting period, the Broadband Wireless sub sector paused to catch its breath and inched up 0.7% in the past three months.

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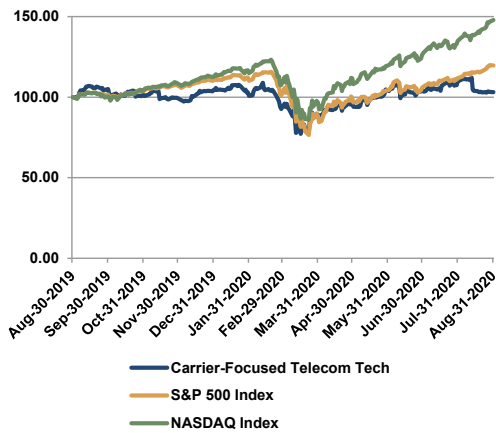
Ubiquiti Networks is always the sub sector bellwether, and it dropped 1.4% this period. This drop was partially counterbalanced by a nearly tripling of the stock value of Cambium Networks (up 197.9% this period) as well as a 42.3% gain at Aviat Networks. For the full year, the sub sector is up slightly more than 60%, making it the best performing sub sector in the CFTTI over this time frame. Ubiquiti Networks had the sub sector's highest annual return at 64.5%, but Aviat Networks (up 53.8%) and Cambium Networks (up 45.2%) were not far behind. Sub sector multiples closed out the period at 6.2x revenue and 23.7x EBITDA. Both of these are higher than year-ago values of 4.1x revenue and 18.0x EBITDA.

## Test and Measurement

Saving the best for last, the Test and Measurement sub sector was the CFTTI's top performing sub sector in the past three months with a gain of 17.0%. Every single stock in the sub sector had a double-digit return, with EXFO (up 38.8%) and Spirent (up 26.8%) the two best performers. The sub sector is also up 17.8% compared to last year, with a 73.0% gain at Spirent overcoming a loss of 4.0% at Viavi, the largest market cap company in the sub sector. Like many of the CFTTI's sub sectors this period, the revenue multiple increased (from 2.5x to 2.8x) while the EBITDA multiple decreased (going from 15.1x to 13.9x). 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

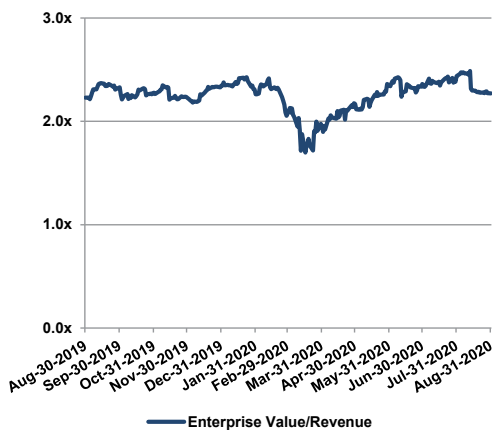
## Twelve Month Index Returns



## Sector and Sub Sector Returns

	12 Month	3 Month
Carrier-Focused Telecom Tech	3.1%	-1.3%
Large Cap	-0.1%	-2.3%
OSS/BSS	-6.6%	-1.8%
IP Networking	30.4%	-8.6%
Wireline Access and Transport	48.3%	11.6%
Cable and Video	-12.8%	4.9%
Broadband Wireless	62.2%	0.7%
Test and Measurement	17.8%	17.0%
S&P 500	19.9%	15.0%
NASDAQ	46.9%	24.1%

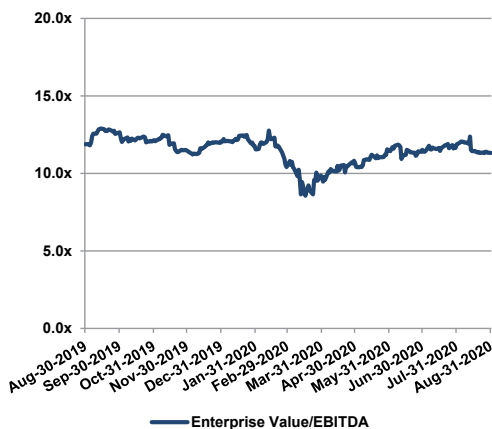
## Revenue Multiple Trends



## Sector and Sub Sector Revenue Multiples

	8/31/2020	8/31/2019
Carrier-Focused Telecom Tech	2.3x	2.2x
Large Cap	2.2x	2.3x
OSS/BSS	1.9x	2.0x
IP Networking	2.2x	1.5x
Wireline Access and Transport	1.9x	1.4x
Cable and Video	1.5x	2.0x
Broadband Wireless	6.2x	4.1x
Test and Measurement	2.8x	2.5x

## EBITDA Multiple Trends



## Sector and Sub Sector EBITDA Multiples

	8/31/2020	8/31/2019
Carrier-Focused Telecom Tech	11.3x	11.9x
Large Cap	10.8x	11.5x
OSS/BSS	10.1x	12.2x
IP Networking	17.6x	19.1x
Wireline Access and Transport	20.6x	21.4x
Cable and Video	18.3x	25.8x
Broadband Wireless	23.7x	18.0x
Test and Measurement	13.9x	15.1x

Source: Capital IQ

# M&A Summary Comments

## M&A

We continued to see the trend of a gradual pickup in M&A activity in the Carrier-Focused Telecom Technology sector. This period had 13 transactions for a total announced transaction dollar volume of just shy of \$250 million, both of which were increases from the levels in our summer report. For the full year we tally 34 total transactions for a total announced transaction dollar volume of \$368.9 million. This pace of activity is low by historical standards, although at least in terms of the number of transactions it seems likely that this year will best what we saw in 2019.

## OSS/BSS Software

With eight transactions this period the OSS/BSS Software sub sector accounted for more than half of the sector's transaction volume. It also had the largest announced dollar volume transaction with the Amdocs acquisition of Openet for \$180 million. VIAVI also notched an acquisition with its pickup of wireless network management software vendor Expandium, while serial consolidator Constellation Software's Volaris division struck again with its purchase of Flash Networks. In the sub sector's final transaction that we will specifically note, PE-backed Mobileum made another acquisition as it added capabilities in roaming testing and security by purchasing SIGOS.

## IP Networking

There were no transactions in the IP Networking sub sector this period.

## Wireline Access and Transport

The most notable acquisition in the Wireline Access and Transport sub sector was the acquisition of Greek access equipment vendor Iskratel by S&T for just north of \$40 million. In the sub sector's other transaction this period, Winegard acquired CPE router and modem vendor WiFi Ranger.

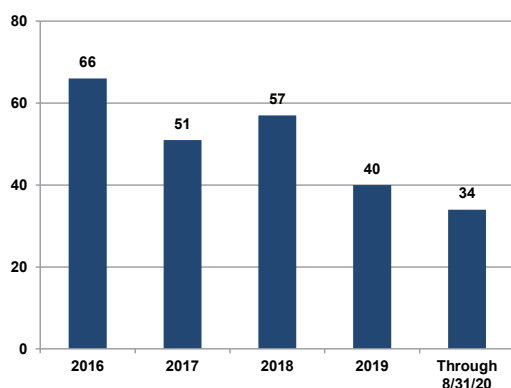
## Cable and Video

There were two transactions in the Cable and Video sub sector this period. In the first, Vecima Networks acquired the DOCSIS distributed access architecture and EPON-related assets from Nokia. This effectively unwinds Nokia's previous acquisition of Gainspeed that it made back in 2016. In the second transaction, Orion Systems Integrators acquired Zodiac Systems, a company that has an orchestration platform that facilitates migration from legacy video delivery platforms.

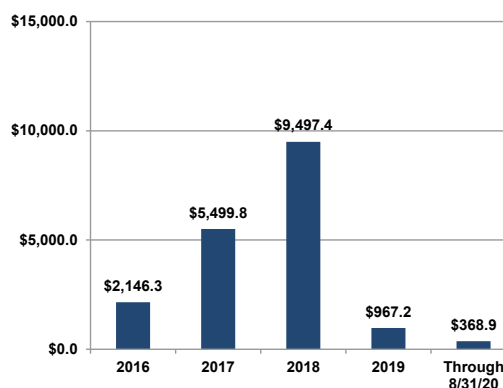
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## Carrier-Focused Telecom Technology: M&A Summary

M&A Activity: Number of Transactions



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



## Broadband Wireless

The lone transaction in the Broadband Wireless sub sector was COMSovereign's acquisition of wireless backhaul vendor Fastback Networks.

## Test and Measurement

There were no transactions in the Test and Measurement sub sector this period.

## Transactions with Multiples

We were fortunate to have a total of three transactions with announced multiples in our fall reporting period. Two of these were in the OSS/BSS Software sub sector. In the first of these, the Amdocs acquisition of Openet went at a solid multiple of 2.6x revenue. The sub sector's second transaction did not fare as well, as the L&T Technology Services purchase of Orchestra Technology was done at less than a turn of revenue (0.7x, to be exact). Finally, in the Wireline Access and Transport sub sector, the S&T purchase of Iskratel had a relatively anemic revenue multiple of 0.3x.

## M&A Announced Transactions (6/1/20 – 8/31/20)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
VIAVI Solutions	Expandium	OSS/BSS Software	8/25/20	NA	Provides wireless telecommunications network management software for telecom carriers and railway operators.
COMSovereign	Fastback Networks	Broadband Wireless	8/24/20	\$13.9	Backhaul products including gigabit capable radios and switches for public and private networks.
Winegard	WiFi Ranger	Wireline Access and Transport	8/19/20	NA	Manufactures indoor routers, outdoor routers and integrated LTE modems.
Vecima Networks	Nokia (Gainspeed Assets)	Cable and Video	7/29/20	NA	DOCSIS distributed access architecture and Ethernet passive optical network technology.
Amdocs	Openet	OSS/BSS Software	7/23/20	\$180.0	Provider of 5G charging, policy and cloud technologies.
L&T Technology Services	Orchestra Technology	OSS/BSS Software	7/16/20	\$11.0	Network performance management SaaS that measures, analyzes and manages devices, services and network KPIs.
Mobileum	SIGOS	OSS/BSS Software	7/13/20	NA	Roaming testing solutions that improve network security and service quality as well as anti-fraud and revenue assurance solutions.
Virtual1	PacketFront Software Solutions	OSS/BSS Software	7/5/20	NA	Software that enables end-to-end service provisioning including automated activation, deactivation and modification of services.
S&T	Iskratel	Wireline Access and Transport	6/30/20	\$42.2	Broadband access and optical network equipment, VoIP gateways and modems for telecom, railway, energy and public safety markets.
Expereo	Comsave	OSS/BSS Software	6/22/20	NA	Software that enables the sourcing, quoting and provisioning of internet and last-mile access services for telecom operators.
Constellation Software	Flash Networks	OSS/BSS Software	6/10/20	NA	Mobile internet optimization software with features for traffic optimization management and gateway creation.
VertiGIS	Mapcom	OSS/BSS Software	6/9/20	NA	Software to help communications services providers manage their plant, people and processes.
Orion Systems Integrators	Zodiac Systems	Cable and Video	6/8/20	NA	Cloud integration platform that enables operators to orchestrate service upgrades and migrations from legacy delivery platforms.

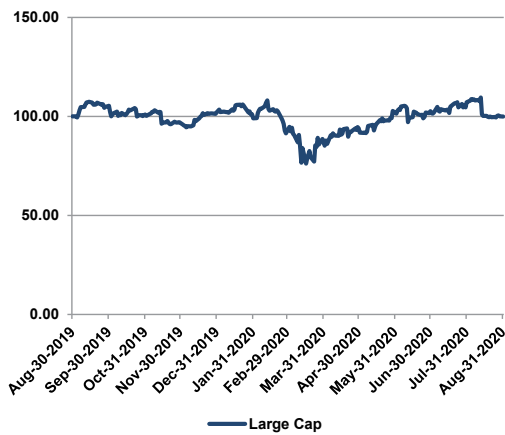
## M&A Announced Transactions with Revenue Multiples (9/1/19 – 8/31/20)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
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.
Ribbon Communications	ECI Telecom	Wireline Access and Transport	11/14/19	\$455.6	1.2 x	19.8 x	Networking and data transport products for service providers, utilities, governments and defense and security customers.
Huber+Suhner	Bktel	Wireline Access and Transport	10/1/19	\$50.2	1.1 x	NA	Active and passive components for fiber-to-the-home and hybrid fiber coax broadband networks.



# Sub Sector Analysis: Large Cap

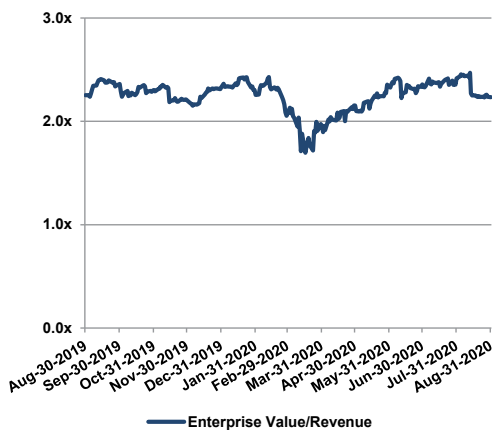
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
Large Cap Index	-0.1%	-2.3%
Cisco	-9.8%	-11.7%
Ericsson	48.6%	27.5%
Juniper	7.9%	3.1%
Nokia	-1.6%	22.8%
ZTE	41.4%	12.7%

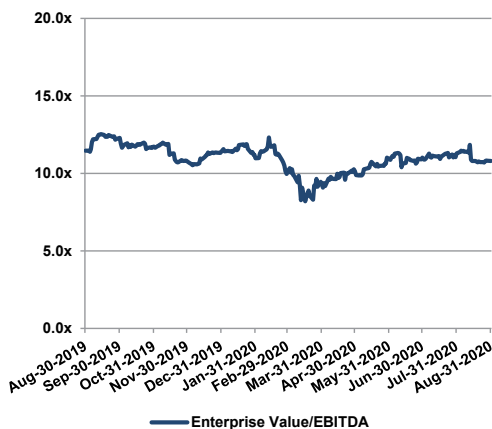
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
Large Cap Index	2.2x	2.3x
Cisco	3.3x	3.7x
Ericsson	1.6x	1.1x
Juniper	1.9x	1.6x
Nokia	1.0x	1.1x
ZTE	1.8x	1.3x

## EBITDA Multiple Trends



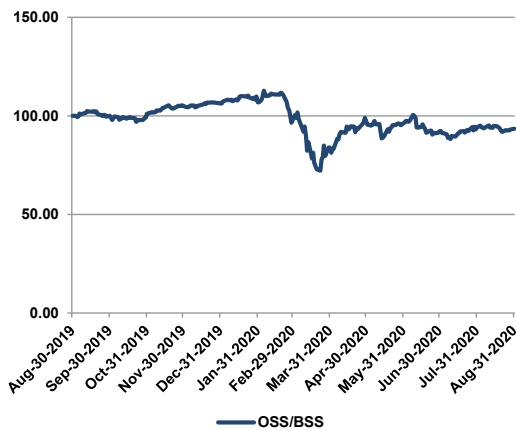
## Company EBITDA Multiples

	8/31/2020	8/31/2019
Large Cap Index	10.8x	11.5x
Cisco	10.3x	12.0x
Ericsson	12.5x	11.1x
Juniper	11.9x	9.8x
Nokia	8.8x	9.4x
ZTE	24.5x	12.8x

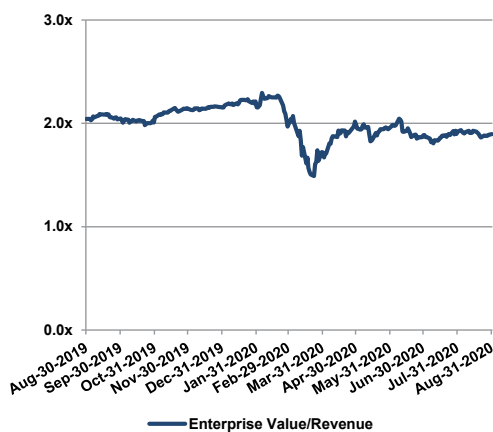
Source: Capital IQ

# Sub Sector Analysis: OSS/BSS Software

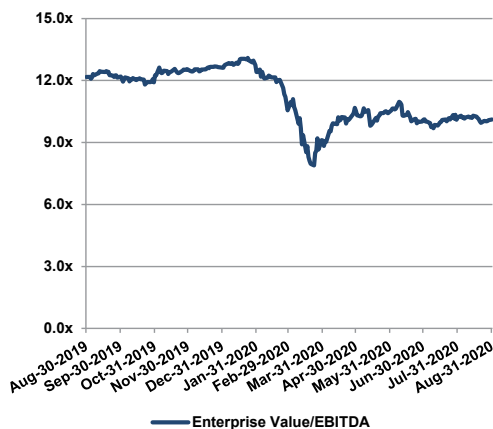
## Twelve Month Index Returns



## Revenue Multiple Trends



## EBITDA Multiple Trends



Source: Capital IQ

## Company Returns

	12 Month	3 Month
OSS/BSS Index	-6.6%	-1.8%
Amdocs	-6.3%	-1.7%
CSG Systems	14.2%	-10.1%
Evolving Systems	-51.8%	5.0%
NetScout	-8.0%	-15.8%
Optiva	4.9%	137.0%
Pareteum	-75.5%	55.9%
Radcom	-46.8%	41.8%
Subex	81.8%	49.2%
Synchronoss	-28.0%	61.1%
Tecnotree	782.7%	173.3%

## Company Revenue Multiples

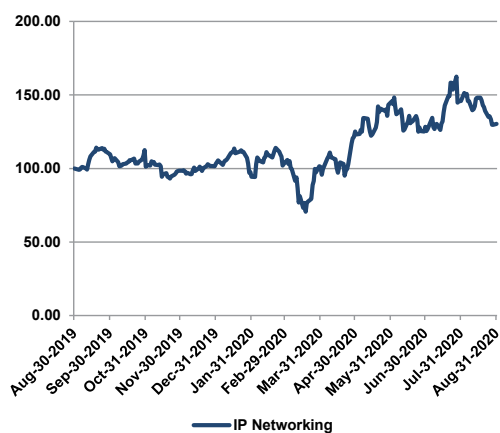
	8/31/2020	8/31/2019
OSS/BSS Index	1.9x	2.0x
Amdocs	1.9x	2.1x
CSG Systems	1.7x	2.1x
Evolving Systems	0.4x	0.4x
NetScout Systems	2.0x	2.0x
Optiva	2.9x	1.9x
Pareteum	1.4x	3.3x
Radcom	2.1x	2.8x
Subex	1.4x	0.7x
Synchronoss	1.5x	1.7x
Tecnotree	3.1x	0.7x

## Company EBITDA Multiples

	8/31/2020	8/31/2019
OSS/BSS Index	10.1x	12.2x
Amdocs	10.2x	11.1x
CSG Systems	10.0x	13.2x
Evolving Systems	10.6x	11.7x
NetScout Systems	12.5x	13.6x
Optiva	NM	33.2x
Pareteum	42.4x	99.7x
Radcom	NM	NM
Subex	5.0x	4.2x
Synchronoss	NM	NM
Tecnotree	10.5x	2.3x

# Sub Sector Analysis: IP Networking

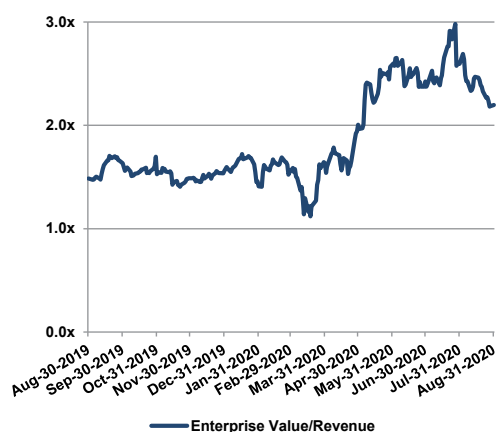
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
IP Networking Index	30.4%	-8.6%
Allot Communications	37.0%	-1.4%
Audiocodes	79.8%	-14.4%
Ribbon Communications	-17.2%	-2.7%

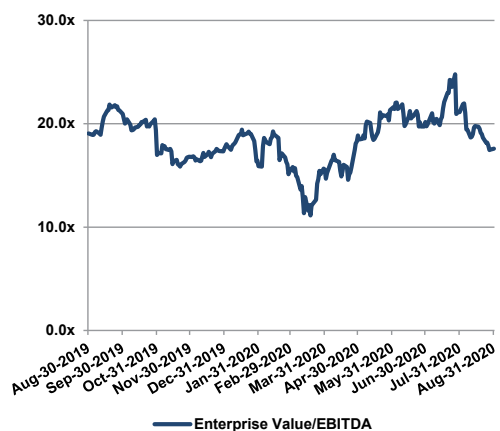
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
IP Networking Index	2.2x	1.5x
Allot Communications	2.4x	1.6x
Audiocodes	4.2x	2.6x
Ribbon Communications	1.5x	1.1x

## EBITDA Multiple Trends



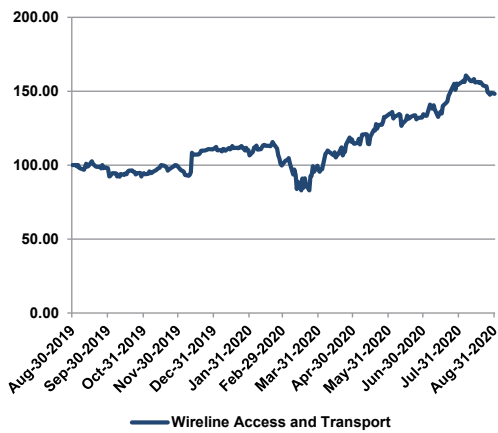
## Company EBITDA Multiples

	8/31/2020	8/31/2019
IP Networking Index	17.6x	19.1x
Allot Communications	NM	NM
Audiocodes	30.1x	21.2x
Ribbon Communications	19.6x	217.8x

Source: Capital IQ

# Sub Sector Analysis: Wireline Access and Transport

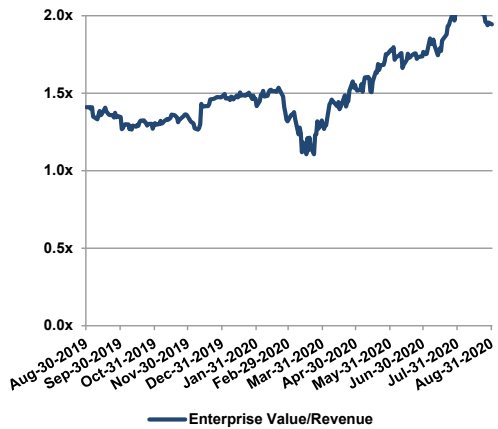
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
Wireline Access & Transport Index	48.3%	11.6%
ADTRAN	8.0%	-2.7%
ADVA	32.2%	31.0%
BATM	209.9%	68.8%
Calix	223.6%	37.9%
CIENA	38.7%	2.7%
Communications Systems	3.1%	-9.1%
Dasan Zhone Solutions	-2.3%	41.8%
Infinera	36.8%	46.4%
Net Insight	42.9%	-4.7%

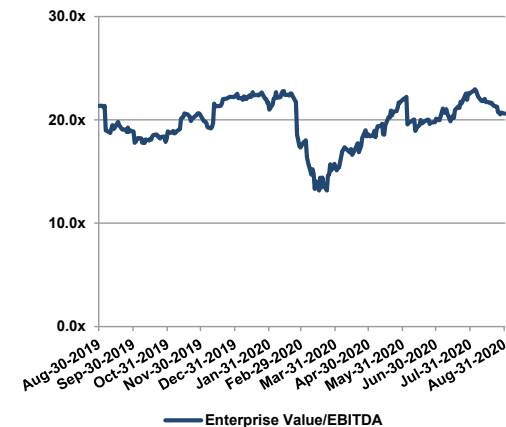
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
Wireline Access & Transport Index	1.9x	1.4x
ADTRAN	0.9x	0.7x
ADVA	0.7x	0.7x
BATM	5.2x	2.1x
Calix	2.6x	0.8x
CIENA	2.3x	1.8x
Communications Systems	0.4x	0.8x
DASAN Zhone Solutions	1.0x	0.8x
Infinera	1.3x	1.1x
Net Insight	1.4x	1.3x

## EBITDA Multiple Trends



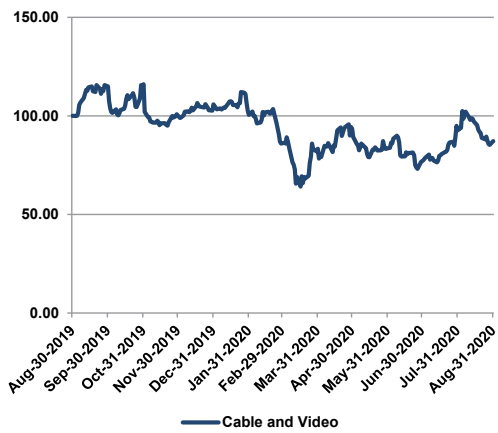
## Company EBITDA Multiples

	8/31/2020	8/31/2019
Wireline Access & Transport Index	20.6x	21.4x
ADTRAN	NM	44.6x
ADVA	10.3x	10.0x
BATM	444.1x	43.4x
Calix	114.5x	NM
CIENA	13.3x	12.7x
Communications Systems	46.7x	NM
DASAN Zhone Solutions	NM	23.1x
Infinera	NM	NM
Net Insight	97.1x	16.1x

Source: Capital IQ

# Sub Sector Analysis: Cable and Video

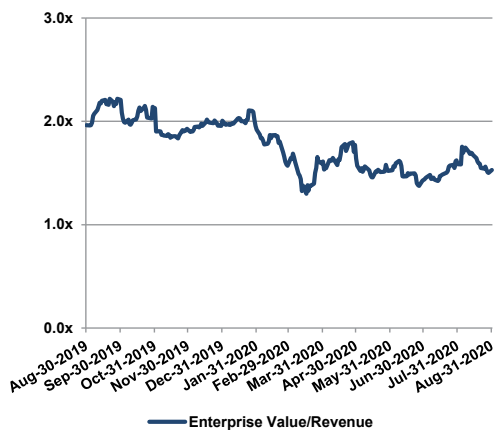
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
Cable and Video Index	-12.8%	4.9%
Amino	19.7%	-3.5%
Casa Systems	-21.0%	4.6%
Harmonic	-10.5%	9.5%
NetGem	36.4%	45.8%
SeaChange	-42.2%	-29.1%

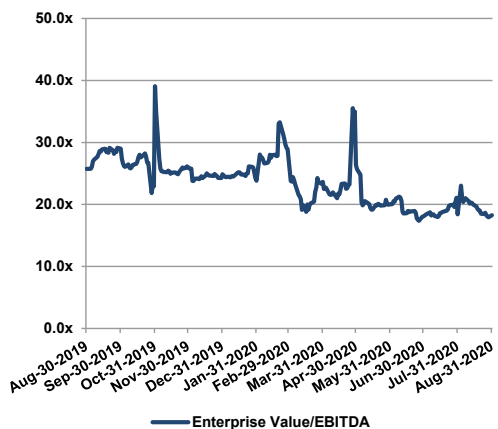
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
Cable and Video Index	1.5x	2.0x
Amino	1.6x	1.1x
Casa Systems	1.4x	2.9x
Harmonic	1.8x	1.9x
NetGem	1.2x	0.7x
SeaChange	0.7x	1.2x

## EBITDA Multiple Trends



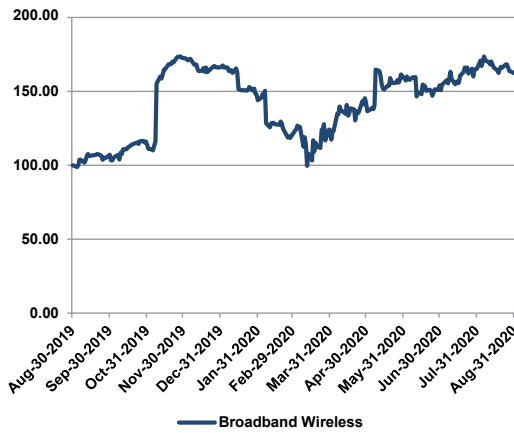
## Company EBITDA Multiples

	8/31/2020	8/31/2019
Cable and Video Index	18.3x	25.8x
Amino	18.1x	9.9x
Casa Systems	28.3x	16.1x
Harmonic	28.7x	73.1x
NetGem	3.6x	16.7x
SeaChange	10.3x	NM

Source: Capital IQ

# Sub Sector Analysis: Broadband Wireless

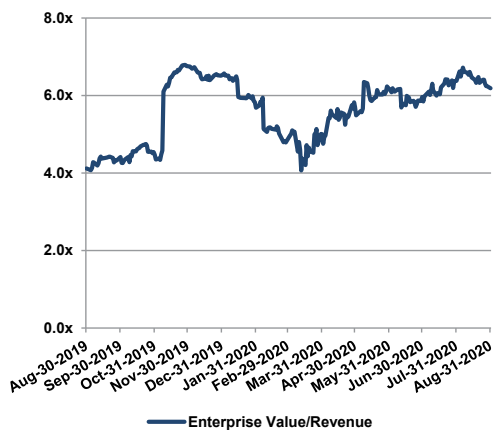
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
Broadband Wireless Index	62.2%	0.7%
Aviat Networks	53.8%	42.3%
Cambium Networks	45.2%	197.9%
Ceragon Networks	2.7%	-2.1%
Redline Communications	-48.4%	-21.6%
Ubiquiti Networks	64.5%	-1.4%

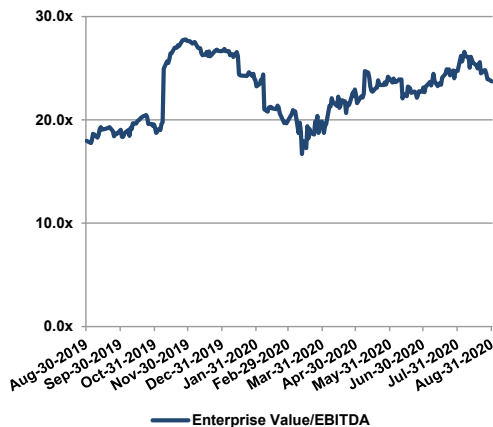
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
Broadband Wireless Index	6.2x	4.1x
Aviat Networks	0.4x	0.2x
Cambium Networks	1.4x	1.0x
Ceragon Networks	0.7x	0.5x
Redline Communications	0.2x	0.5x
Ubiquiti Networks	9.4x	6.7x

## EBITDA Multiple Trends



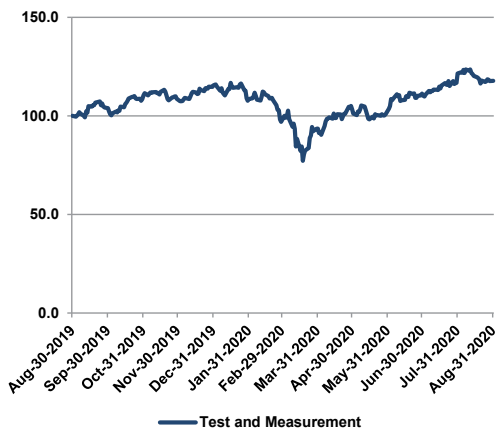
## Company EBITDA Multiples

	8/31/2020	8/31/2019
Broadband Wireless Index	23.7x	18.0x
Aviat Networks	7.5x	8.0x
Cambium Networks	17.8x	14.6x
Ceragon Networks	85.0x	5.3x
Redline Communications	NM	NM
Ubiquiti Networks	24.9x	18.5x

Source: Capital IQ

# Sub Sector Analysis: Test and Measurement

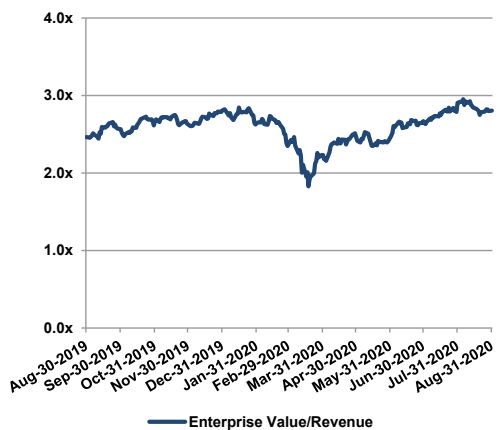
## Twelve Month Index Returns



## Company Returns

	12 Month	3 Month
Test and Measurement Index	17.8%	17.0%
Anritsu	16.8%	10.9%
EXFO	-1.3%	38.8%
Spirent	73.0%	26.8%
Viavi	-4.0%	15.1%

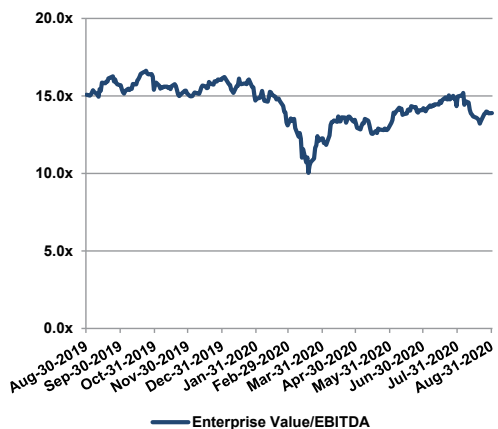
## Revenue Multiple Trends



## Company Revenue Multiples

	8/31/2020	8/31/2019
Test and Measurement Index	2.8x	2.5x
Anritsu	2.6x	2.4x
EXFO	0.9x	0.7x
Spirent	4.2x	2.6x
Viavi	2.8x	2.9x

## EBITDA Multiple Trends



## Company EBITDA Multiples

	8/31/2020	8/31/2019
Test and Measurement Index	13.9x	15.1x
Anritsu	11.5x	14.8x
EXFO	16.9x	9.7x
Spirent	17.6x	13.6x
Viavi	15.8x	17.2x

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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