

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
- 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 equip-

**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) continued its trend of strong gains with a 7.2% increase in our fall reporting period. While strong, the gain still lagged the broader indices as the S&P 500 was up 7.6% and the NASDAQ was up 11.0% over the same time frame. The CFTTI also turned in an impressive 12-month gain of 28.9%. Even so, the sector still came in slightly behind both the 29.2% gain in the S&P 500 and the 29.6% gain in the NASDAQ. Sector multiples continued their upward trend and closed out the period at 2.8x revenue and 13.3x EBITDA. These compare very favorably to year-ago multiples of 2.3x revenue and 11.5x EBITDA

# Large Cap

For the second straight reporting period the Large Cap sub sector was the best performing sub sector in the CFTTI. The sub sector's gain this period was 8.2%. Cisco, Juniper and Nokia all turned in double digit gains, while Ericsson was the only stock in negative territory with a decline of 12.0%. The sub sector is also up 27.8% for the full year period. Cisco, Juniper and Nokia were the top performers over this time frame as well, but in this case the one stock to show a decline was ZTE. During the course of the past year the sub sector revenue multiple jumped from 2.2x to 2.7x, while the sub sector EBITDA multiple increased from 10.9x to 12.9x.

#### OSS/BSS Software

The OSS/BSS software sub sector dipped into negative territory this period with a three-month loss of 0.6%. Six of the ten companies in the sub sector were in the red this period, including a nearly 70% loss at Pareteum and a nearly 20% loss at Optiva. On the bright side, Evolving Systems was up 20.3%, and CSG Systems and Radcom were up 9.5% and 11.7%, respectively. Even with this period's losses, the sub sector still showed a 24.6% increase over the past 12 months. Subex (up nearly 400%), Tecnotree (up nearly 200%) and Evolving Systems (up more than 100%) were the star performers, but four other companies had double digit increases. Multiples are also higher than they were at this same time last year. The sub sector revenue multiple went from 1.9x to 2.2x, while the sub sector EBITDA multiple went from 10.1x to 11.6x.

# IP Networking

The 9.2% decline in the IP Networking sub sector easily made it the worst performing sub sector in the CFTTI this period. All three companies in the index were in negative territory, including double digit declines at both Allot Communications and Ribbon Communications. The situation looks significantly better when measured over the full year. Over this period, the sub sector is up 26.7% and both Allot Communications and Ribbon Communications can boast of gains in excess of 50%. While the index increased yearover-year, sub sector multiples actually fell. The sub sector revenue multiple declined from 2.2x to 2.1x, while the sub sector EBITDA multiple dropped even more dramatically from 18.5x to 11.7x.

## Wireline Access and Transport

The Wireline Access and Transport sub sector turned in another solid performance with a three-month gain of 6.9%. Tejas Networks more than doubled this period, while both ADTRAN and ADVA traded higher after the news of their pending merger. The sub sector's year-over-year gain of 22.6% was strong, but it was still the second worst performing sub sector in the CFTTI over this time period. Multiple performance was mixed. The sub sector revenue multiple increased nicely from 2.0x to 2.3x over the last 12 months, but the sub sector EBITDA multiple fell from 21.1x to 16.2x over the same time period.

#### Cable and Video

While the Cable and Video sub sector enjoyed a respectable three-month gain of 5.0% in our fall reporting period, the situation was not as rosy as it might first appear. This period's gain was entirely due to a 32.6% increase at Harmonic. The other companies in the sub sector all delivered negative returns, including an 18.9% drop at Casa Systems. The sub sector looks much better when measured over the full year period. It trades nearly 50% higher than at this same time last year, and every company except SeaChange is up strongly year-over-year. The Cable and Video sub sector was another sub sector with mixed multiple performance compared to this time last year. The revenue multiple increased strongly from 1.5x to 2.0x, but the EBITDA multiple fell from 19.5x to 15.1x.

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#### **Broadband Wireless**

The Broadband Wireless sub sector returned to positive territory this period with a gain of 3.9%. Ceragon Networks was the top performer with a gain of 21.0%, while sub sector leader Ubiquiti Networks was the only other company in the black with a gain of 7.9%. While this period's gain was modest, the sub sector continues to have the highest year-over-year gain in the CFTTI at 81.8%. The sub sector also continues to trade at the highest multiples in the CFTTI as well, closing out the period with a revenue multiple of 7.7x and an EBITDA multiple of 26.9x. Both of these are higher than year-ago multiples of 6.2x revenue and 23.7x EBITDA.

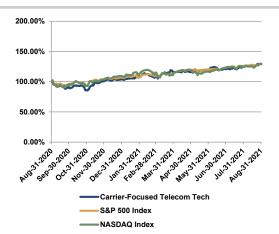
#### Test and Measurement

The Test and Measurement sub sector was the second worst performing CFTTI sub sector this period with a loss of 1.8%. While Spirent jumped 16.0%, it was not enough to offset losses at Anritsu and Viavi. The sub sector also brings up the rear of the CFTTI for the full year with a gain of only 2.9%. Sub sector multiples remained roughly similar to where they were at this time last year. The sub sector revenue multiple stayed constant at 3.0x, while the EBITDA multiple dipped from 13.9x to 13.8x.



# Carrier-Focused Telecom Technology: Public Market Summary

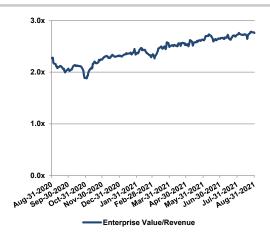
#### Twelve Month Index Returns



#### Sector and Sub Sector Returns

	12 Month	3 Month
Carrier-Focused Telecom Tech	28.9%	7.2%
Large Cap	27.8%	8.2%
OSS/BSS	24.6%	-0.6%
IP Networking	26.7%	-9.2%
Wireline Access and Transport	22.6%	6.9%
Cable and Video	48.4%	5.0%
Broadband Wireless	81.8%	3.9%
Test and Measurement	2.9%	-1.8%
S&P 500	29.2%	7.6%
NASDAQ	29.6%	11.0%

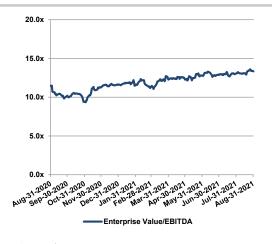
### Revenue Multiple Trends



# Sector and Sub Sector Revenue Multiples

	8/31/2021	8/31/2020
Carrier-Focused Telecom Tech	2.8x	2.3x
Large Cap	2.7x	2.2x
OSS/BSS	2.2x	1.9x
IP Networking	2.1x	2.2x
Wireline Access and Transport	2.3x	2.0x
Cable and Video	2.0x	1.5x
Broadband Wireless	7.7x	6.2x
Test and Measurement	3.0x	3.0x

#### **EBITDA** Multiple Trends



### Sector and Sub Sector EBITDA Multiples

	8/31/2021	8/31/2020
Carrier-Focused Telecom Tech	13.3x	11.5x
Large Cap	12.9x	10.9x
OSS/BSS	11.6x	10.1x
IP Networking	11.7x	18.5x
Wireline Access and Transport	16.2x	21.1x
Cable and Video	15.1x	19.5x
Broadband Wireless	26.9x	23.7x
Test and Measurement	13.8x	13.9x



# M&A Summary Comments

#### M&A

After a disappointingly low level of M&A activity in our summer report, the deal market picked up considerably in our fall reporting period. The total number of announced transactions returned to a level more consistent with historical norms with a total of 17 transactions. Even more impressively, the total announced transaction dollar volume for the last three months was \$5.3 billion. To put this in perspective, this total was greater than the total announced transaction dollar volume for 2018 and 2019 combined. Year-to-date, the sub sector stands at 38 deals for a total announced transaction dollar volume of \$5.6 billion. This puts 2021 on pace to be a little light in terms of the number of deals, but with one of the higher totals for announced transaction dollar volume in the past five years.

#### OSS/BSS Software

The OSS/BSS Software sub sector was extremely active this period with a total of 13 transactions. This is more than double the amount of activity in our summer report. Two of these were billion dollar transactions. These were the proposed acquisition of Syniverse by a SPAC for \$2.85 billion as well as the acquisition of virtualized RAN software vendor Altiostar Networks by Rakuten Mobile for \$1.0 billion. Lumine Group was the sub sector's most active acquirer in terms of transaction volume, scoring a

hat trick with its acquisitions of the mobile network solutions business of Concentrix, Ubersmith and Neural Technologies. Mobileum also notched three acquisitions this period, although only one (Niometrics) was in the OSS/BSS Software sector. Finally, we noted the acquisition of telecom inventory and cost management software company Sage Management by SIB Fixed Cost Reduction.

#### IP Networking

The only transaction in the IP Networking sub sector was Mobileum's acquisition of wireless network core vendor Convene Networks.

## Wireline Access and Transport

The Wireline Access and Transport sub sector also had only a single transaction this period, but it was a big one This was the announced acquisition of ADVA Optical Networks by ADTRAN for \$1.1 billion. In addition to combining two companies that like capital letters, it also unites two of the mid-market leaders in the optical and Ethernet access and transport markets.

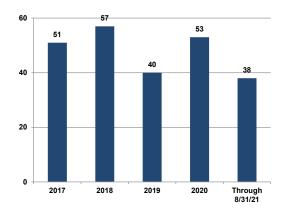
#### Cable and Video

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

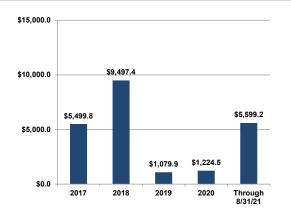
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# Carrier-Focused Telecom Technology: M&A Summary

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



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





#### **Broadband Wireless**

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

### Test and Measurement

The largest acquisition in the Test and Measurement space was the take private transaction of EXFO by its management team. This deal was done at a valuation of \$366 million. In addition, Mobileum's final acquisition for this period (of 5G and IoT testing solutions company Developing Solutions) also fell into the Test and Measurement sub sector.

# Transactions with Multiples

The two deals this period with announced transaction multiples were the ADTRAN acquisition of ADVA Optical Networks and the take private of EXFO. The ADVA deal had multiples of 1.5x revenue and 12.2x EBITDA, while the EXFO deal's multiples were 1.3x revenue and 24.3x EBITDA.

# M&A Announced Transactions (6/1/21 - 8/31/21)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
ADTRAN	Adva Optical Networks	Wireline Access and Transport	8/30/21	\$1,066.4	Optical and Ethernet-based networking solutions to deliver data, storage, voice and video services.
Mavenir Systems	Telestax	OSS/BSS Software	8/25/21	NA	Open source communication PaaS for telecom operators that integrates voice, video and messaging functionality into applications.
Bemobi Mobile Tech	Tiaxa	OSS/BSS Software	8/16/21	NA	Charging, revenue assurance, quality monitoring and data retention functionalities for telecom operators.
M3-Brigade Acquisition II	Syniverse	OSS/BSS Software	8/16/21	\$2,850.0	Mobile messaging, roaming and network gateway and transport infrastructure services for the wireless telecommunications industry.
SIB Fixed Cost Reduction	Sage Management	OSS/BSS Software	8/3/21	NA	Software-driven solutions that enable customers to optimize their telecommunications inventory and spend.
Westbase Group	Wireless Coverage	OSS/BSS Software	7/19/21	NA	Wireless coverage modelling software for network providers and operators.
ENEA	Adaptive Mobile Security	OSS/BSS Software	7/15/21	NA	Mobile safeguard and security solutions to protect services on fixed and mobile networks through in-network and cloud solutions.
Lumine Group	Concentrix (Mobile Network Solutions Business)	OSS/BSS Software	7/5/21	NA	Software that provides call completion, messaging and online charging for communications services providers.
Unicorn Systems	TelcoOSS	OSS/BSS Software	7/4/21	NA	Telecommunications network management systems.
Lumine Group	Ubersmith	OSS/BSS Software	7/1/21	NA	Subscription management software for the cloud that provides billing, infrastructure and ticketing solutions.
Mobileum	Niometrics	OSS/BSS Software	6/29/21	NA	Wireless network management software that facilitates customer experience management and network planning and optimization.
Somos	XConnect	OSS/BSS Software	6/29/21	NA	Telephone number information services with solutions for voice and messaging routing, fraud protection and analytics.
Mobileum	Convene Networks	IP Networking	6/23/21	NA	Solutions for wireless network cores including routing and session control, home subscriber server and equipment identity register.
Mobileum	Developing Solutions	Test and Measurement	6/22/21	NA	Software products with a focus on 5G and IOT testing capabilities to ensure high performance, compliance and reliability.
Management	EXF0	Test and Measurement	6/7/21	\$366.1	Test, monitoring and analytics solutions for fixed and mobile network operators, web-scale companies and equipment manufacturers.
Rakuten Mobile	Altiostar Networks	OSS/BSS Software	6/4/21	\$1,000.0	4G and 5G open virtualized RAN software that supports open interfaces and virtualizes the radio access baseband functions.
Lumine Group	Neural Technologies	OSS/BSS Software	6/1/21	NA	Modular revenue protection, signaling, machine learning and artificial intelligence software for telecom operators.



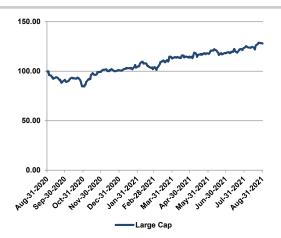
# M&A Announced Transactions with Revenue Multiples (9/1/20 - 8/31/21)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
ADTRAN	Adva Optical Networks	Wireline Access and Transport	8/30/21	\$1,066.4	1.5 x	12.2 x	Optical and Ethernet-based networking solutions to deliver data, storage, voice and video services.
Management	EXF0	Test and Measurement	6/7/21	\$366.1	1.3 x	24.3 x	Test, monitoring and analytics solutions for fixed and mobile network operators, web-scale companies and equipment manufacturers.
Amino Technologies	24i Unit Media	Cable and Video	5/27/21	\$6.5	1.4 x	NA	Develops and markets television and video-on- demand software for telcos, cable television operators and Internet service providers.
Spirent Communications	octoScope	Test and Measurement	3/5/21	\$55.0	2.8 x	NA	Wireless test solutions and methodologies for Wi-Fi and 5G testing in emulated real-world environments.
Cisco Systems	IMImobile	OSS/BSS Software	12/6/20	\$752.8	3.5 x	34.9 x	CRM content distribution and management and mobile messaging software and related services for wireless carriers and enterprises.
IQGeo	OSPInsight	OSS/BSS Software	12/1/20	\$8.8	2.2 x	17.5 x	Fiber optic network management software solution.
Sterlite Technologies	OPTOTEC	Wireline Access and Transport	11/2/20	\$33.7	1.4 x	NA	Fiber-to-the-home network products.
Agile Content	Edgeware	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.



# Sub Sector Analysis: Large Cap

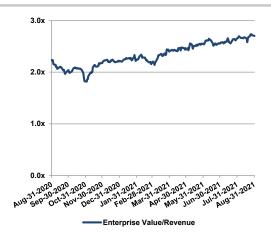
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
Large Cap Index	27.8%	8.2%
Cisco	39.8%	11.6%
Ericsson	1.5%	-12.0%
Juniper	15.9%	10.1%
Nokia	23.2%	15.4%
ZTE	-9.8%	4.1%

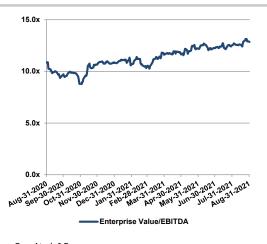
# **Revenue Multiple Trends**



### Company Revenue Multiples

	8/31/2021	8/31/2020
Large Cap Index	2.7x	2.2x
Cisco	4.7x	3.3x
Ericsson	1.4x	1.6x
Juniper	2.2x	1.9x
Nokia	1.2x	1.0x
ZTE	1.3x	1.9x

### **EBITDA** Multiple Trends



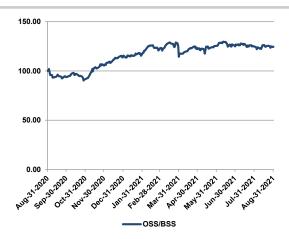
### **Company EBITDA Multiples**

	8/31/2021	8/31/2020
Large Cap Index	12.9x	10.9x
Cisco	15.1x	10.3x
Ericsson	8.7x	13.4x
Juniper	14.7x	11.9x
Nokia	7.9x	8.2x
ZTE	21.8x	30.7x

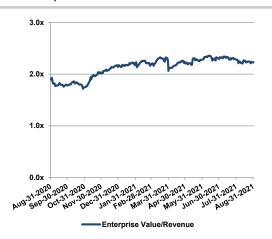


# Sub Sector Analysis: OSS/BSS Software

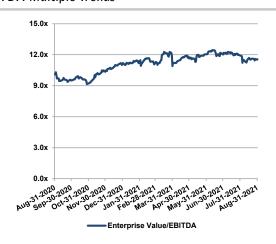
#### Twelve Month Index Returns



### **Revenue Multiple Trends**



### **EBITDA** Multiple Trends



Source: Capital IQ

#### Company Returns

	12 Month	3 Month
OSS/BSS Index	24.6%	-0.6%
Amdocs	25.8%	-1.4%
CSG Systems	13.2%	9.5%
Evolving Systems	112.3%	20.3%
NetScout	18.5%	-6.7%
Optiva	-50.4%	-19.4%
Pareteum	-84.4%	-69.3%
Radcom	15.6%	11.7%
Subex	387.6%	-12.8%
Synchronoss	-39.6%	-8.9%
Tecnotree	174.0%	51.1%

# Company Revenue Multiples

	8/31/2021	8/31/2020
OSS/BSS Index	2.2x	1.9x
Amdocs	2.3x	1.9x
CSG Systems	1.7x	1.7x
Evolving Systems	0.9x	0.4x
NetScout Systems	2.3x	2.0x
Optiva	2.4x	2.9x
Pareteum	0.4x	1.6x
Radcom	2.5x	2.1x
Subex	7.5x	1.4x
Synchronoss	1.6x	1.5x
Tecnotree	6.8x	3.1x

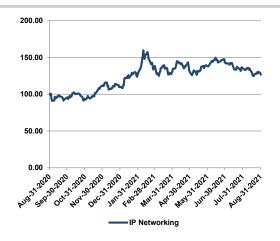
# **Company EBITDA Multiples**

	- / /	- / /
	8/31/2021	8/31/2020
OSS/BSS Index	11.6x	10.1x
Amdocs	12.0x	10.2x
CSG Systems	10.6x	10.0x
Evolving Systems	10.4x	10.6x
NetScout Systems	13.5x	12.5x
Optiva	9.5x	NM
Pareteum	NM	NM
Radcom	NM	NM
Subex	31.6x	5.0x
Synchronoss	676.1x	NM
Tecnotree	17.6x	10.3x



# Sub Sector Analysis: IP Networking

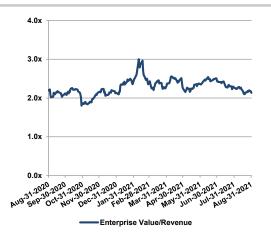
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
IP Networking Index	26.7%	-9.2%
Allot Communications	58.0%	-13.8%
Audiocodes	-0.2%	-3.1%
Ribbon Communications	52.6%	-12.2%

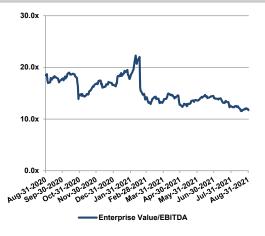
# **Revenue Multiple Trends**



### Company Revenue Multiples

	8/31/2021	8/31/2020
IP Networking Index	2.1x	2.2x
Allot Communications	3.5x	2.4x
Audiocodes	3.7x	4.2x
Ribbon Communications	1.5x	1.5x

# **EBITDA** Multiple Trends



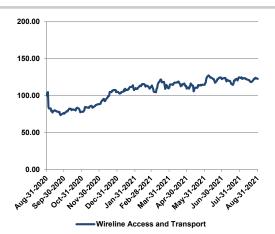
### **Company EBITDA Multiples**

	8/31/2021	8/31/2020
IP Networking Index	11.7x	18.5x
Allot Communications	NM	NM
Audiocodes	18.8x	30.2x
Ribbon Communications	9.7x	9.1x



# Sub Sector Analysis: Wireline Access and Transport

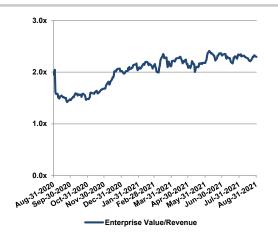
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
Wireline Access & Transport Index	22.6%	6.9%
ADTRAN	86.3%	4.3%
ADVA	95.5%	21.9%
BATM	-28.2%	4.0%
Calix	139.6%	5.2%
CIENA	0.6%	8.1%
Dasan Zhone Solutions	32.5%	-16.6%
Infinera	16.2%	-11.8%
Tejas Networks	509.3%	106.4%

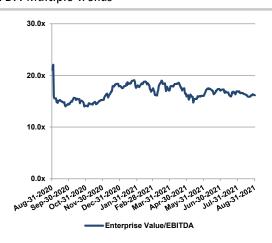
# **Revenue Multiple Trends**



### Company Revenue Multiples

	8/31/2021	8/31/2020
Wireline Access & Transport Index	2.3x	2.0x
ADTRAN	1.7x	0.9x
ADVA	1.2x	0.7x
BATM	2.8x	5.2x
Calix	4.3x	2.6x
CIENA	2.4x	2.3x
DASAN Zhone Solutions	1.0x	1.0x
Infinera	1.5x	1.3x
Tejas Networks	5.4x	1.1x

### **EBITDA** Multiple Trends



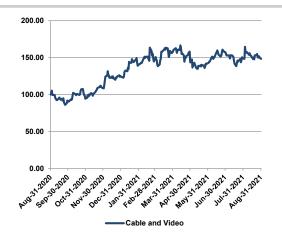
### **Company EBITDA Multiples**

	8/31/2021	8/31/2020
Wireline Access & Transport Index	16.2x	21.1x
ADTRAN	36.2x	NM
ADVA	10.4x	10.3x
BATM	15.0x	444.8x
Calix	26.9x	114.5x
CIENA	13.3x	13.3x
DASAN Zhone Solutions	NM	NM
Infinera	86.0x	NM
Tejas Networks	96.1x	NM



# Sub Sector Analysis: Cable and Video

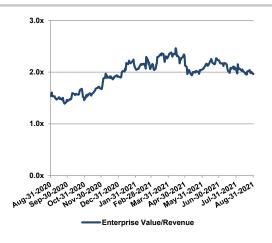
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
Cable and Video Index	48.4%	5.0%
Amino	20.4%	-1.7%
Casa Systems	54.7%	-18.9%
Harmonic	56.6%	32.6%
SeaChange	-20.1%	-7.8%

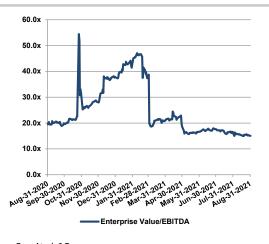
# Revenue Multiple Trends



### Company Revenue Multiples

	8/31/2021	8/31/2020
Cable and Video Index	2.0x	1.5x
Amino	1.9x	1.6x
Casa Systems	1.7x	1.4x
Harmonic	2.2x	1.8x
SeaChange	1.8x	0.9x

# **EBITDA** Multiple Trends



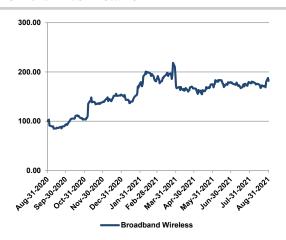
# **Company EBITDA Multiples**

	8/31/2021	8/31/2020
Cable and Video Index	15.1x	19.5x
Amino	18.9x	17.2x
Casa Systems	13.1x	26.3x
Harmonic	14.8x	28.7x
SeaChange	NM	NM



# Sub Sector Analysis: Broadband Wireless

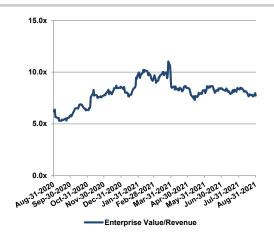
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
Broadband Wireless Index	81.8%	3.9%
Airspan Networks	NA	NA
Aviat Networks	226.9%	-4.1%
Cambium Networks	187.1%	-35.1%
Ceragon Networks	75.7%	21.0%
Redline Communications	-34.2%	-32.8%
Ubiquiti Networks	79.0%	7.9%

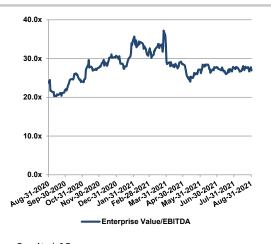
# Revenue Multiple Trends



### Company Revenue Multiples

	8/31/2021	8/31/2020
Broadband Wireless Index	7.7x	6.2x
Airspan Networks	5.0x	NA
Aviat Networks	1.3x	0.4x
Cambium Networks	2.9x	1.4x
Ceragon Networks	1.2x	0.7x
Redline Communications	0.2x	0.3x
Ubiquiti Networks	10.9x	9.4x

# **EBITDA** Multiple Trends



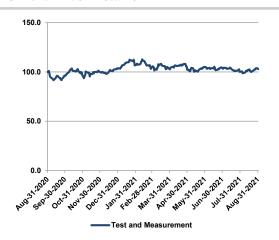
### **Company EBITDA Multiples**

	8/31/2021	8/31/2020
Broadband Wireless Index	26.9x	23.7x
Airspan Networks	NM	NA
Aviat Networks	11.8x	7.5x
Cambium Networks	19.2x	133.8x
Ceragon Networks	22.3x	91.2x
Redline Communications	NM	NM
Ubiquiti Networks	27.3x	24.9x



# Sub Sector Analysis: Test and Measurement

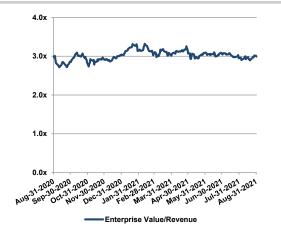
#### Twelve Month Index Returns



#### Company Returns

	12 Month	3 Month
Test and Measurement Index	2.9%	-1.8%
Anritsu	-20.6%	-8.4%
Spirent	5.5%	16.0%
Viavi	22.2%	-7.1%

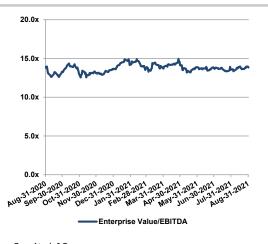
# Revenue Multiple Trends



### Company Revenue Multiples

	8/31/2021	8/31/2020
Test and Measurement Index	3.0x	3.0x
Anritsu	2.1x	2.6x
Spirent	4.4x	4.2x
Viavi	3.1x	2.8x

# **EBITDA** Multiple Trends



### **Company EBITDA Multiples**

	8/31/2021	8/31/2020
Test and Measurement Index	13.8x	13.9x
Anritsu	9.6x	11.5x
Spirent	20.4x	17.5x
Viavi	15.6x	15.8x



# FOCUS Telecom Technology and Services Team



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Rich Pierce has 20 years of investment banking experience advising

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



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

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

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