

Telecom Technology and Services Group

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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Telecom Technology Quarterly

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

FOCUS believes that the Telecom Technology sector is one of the most exciting 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, communications service providers require tools to perform a variety of other critical functions including network planning and optimization, network monitoring, service assurance, network testing and service delivery and monetization. At the same time, enterprises are facing their own challenges as they look to support every increasing needs for bandwidth, the movement of business applications to the cloud, the challenges of supporting a remote workforce and the need to integrate a variety of communications modes into their business processes. 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 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.

Broadband Access and Transport: FTTP equipment, DOCSIS access, carrier-grade switching and routing, and WDM-based transport.

Broadband Wireless: High capacity, fixed wireless equipment.

Enterprise Networking: Enterprise-grade switches and routers (wireline and wireless), application and bandwidth management tools such as WAN optimization and application acceleration and network management tools.

OSS/BSS Software: Software systems that manage and bill the customer base and monitor and maintain telecom networks.

Test and Measurement: Equipment used by both service providers and manufacturers to test and monitor networks and equipment.

Unified Communications and Contact Center: PBXs, videoconferencing-related products and software products designed to enhance the efficiency of contact center networks.



Summary Comments

Public Markets

The FOCUS Telecom Technology Index (TTI) jumped up 9.7% in the most recent three months. This outperformed both the 7.8% gain in the S&P 500 and the 8.5% gain in the NASDAQ. However, the situation is reversed for the 12-month period as the 11.9% gain in the TTI lagged the 14.0% gain in the S&P 500 and the 18.8% gain in the NASDAQ. Sector multiples trended higher compared to this time last year, but only by a relatively small margin. The TTI's revenue multiple increased from 2.4x a year ago to 2.5x currently, while the EBITDA multiple went from 13.1x to 13.7x over the same time period.

Large Cap

The Large Cap sub sector was the TTI's second best performing sub sector in our fall reporting period with a three-month gain of 11.1%. This gain was entirely due to a 15.5% gain at Cisco. All of the other companies in the sub sector were flat to down over the past three months. Cisco was also the main driver for the sub sector's 16.9% yearover-year gain. However, in this case both ZTE and Juniper also chipped in with positive returns. In contrast, Ericsson and Nokia dropped 30.6% and 20.8%, respectively, over the past year. Sub sector multiples closed out the period at 2.1x revenue and 10.7x EBITDA. Both of these are higher than year-ago multiples of 2.0x revenue and 9.7x EBITDA.

Broadband Access and Transport

The Broadband Access and Transport sub sector fell 2.5% over the past three months. Losses were broad-based as six of the nine companies in the sub sector posted a negative return. This included drops of 61.3% at Dasan Zhone Solutions and 39.4% at Harmonic. In contrast, Tejas Networks jumped up 25.0% this period. The sub sector is also down 10.0% for the full year. The 36.4% gain at Tejas Networks made it the only company in the index to deliver a positive year-over-year return. Sub sector multiples fell from 2.0x revenue and 19.9x EBITDA a year ago to 1.8x revenue and 18.9x EBITDA currently.

Broadband Wireless

The picture was rosier for Broadband Wireless as the sub sector ticked up 5.5% in the current reporting period. The 15.1% gain at Aviat Networks made it the sub sector's top performing stock, but Ceragon Networks and Ubiquiti Networks also delivered solid returns of 8.9% and 7.3%, respectively. Even with this period's gains, the sub sector has shed more than 40% of its value over the past 12 months. This includes a 93.6% decline at Airspan Networks, a 52.7% decline at Cambium Networks and a 43.6% decline at Ubiquiti Networks. Not surprisingly, sub sector multiples are down steeply compared to this time last year. The sub sector revenue multiple plummeted from 7.6x to 4.1x, while the EBITDA multiple experienced an equally dramatic drop from 43.0x to 20.4x.

Enterprise Networking

The Enterprise Networking sub sector was the top performing sub sector in the TTI over these past three months with an impressive gain of 17.5%. Seven of the ten stocks in the index posted a positive return, with Accton (up 30.7%) and Extreme Networks (up 33.3%) leading the way. The sub sector is also the top performer for the full year with a 12-month gain just shy of 50%. Once again, Accton and Extreme Networks played a big role in this increase, but there were also strong gains at Arista Networks, D-Link and Unizyx Holding. The sub sector revenue multiple showed a nice increase compared to last year, jumping from 4.2x to 5.1x. Growth in the sub sector's EBITDA multiple was more modest, as this multiple went from 21.6x a year ago to 23.1x currently.

OSS/BSS Software

Performance for the OSS/BSS Software sub sector was disappointing as the sub sector fell 1.9% over the past three months. A number of companies like CSG Systems, Lumine Group and Subex all boasted strong performances. However, these were not enough to overcome sharp losses at larger market cap companies like Amdocs and Net-Scout. The sub sector remains in positive territory for the full year period with a gain of 1.7%. However, this increase is almost entirely attributable to a 4.4% gain at Amdocs. Multiples ended the period at 2.5x revenue (up from 2.3x a year ago) and 12.8x EBITDA (up from 11.4x a year ago).

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Test and Measurement

The Test and Measurement sub sector continued its downward trend with a drop of 3.6% this period. Viavi enjoyed a solid three-month gain of 6.2%, but this was not enough to overcome a 14.6% drop at Anritsu and a 10.6% drop at Spirent. Over the past 12 months the sub sector has fallen 31.0%. Every single stock in the sub sector is down more than 25% over this time frame. Despite the overall decline in the index, sub sector multiple performance is mixed. The revenue multiple fell precipitously from 2.4x last year to 1.8x currently. However, the sub sector EBITDA multiple actually ticked up slightly from 11.0x to 11.7x.

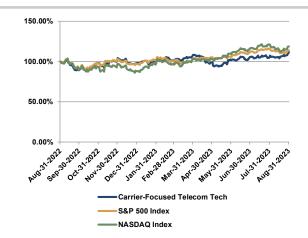
Unified Communications and Contact Center

There were no wild swings for the Unified Communications and Contact Center sub sector as it inched down 0.8% in our fall reporting period. Gainers and losers were split evenly with five apiece. On the positive side, companies like Crexendo, Five9, LiveVox and Sangoma Technologies all enjoyed strong gains. On the other hand, losses at 8x8, Enghouse Systems and RingCentral served to drag the sub sector down. The sub sector is still down 15.4% for the full year. Over that time frame only a single company (LiveVox) managed to deliver a positive return. The sub sector revenue multiple also trended lower, falling from 3.8x a year ago to 2.9x at the end of the current reporting period. The sub sector EBITDA multiple went from "Not Meaningful" a year ago to 275.7x currently, so the sub sector is now generating positive EBITDA for the first time in almost a year.



Telecom Technology: Public Market Summary

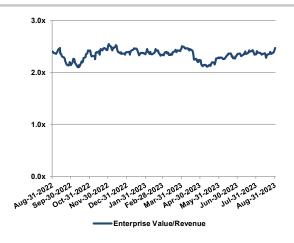
Twelve Month Index Returns



Sector and Sub Sector Returns

	12 Month	3 Month
Telecom Technology	11.9%	9.7%
Large Cap	16.9%	11.1%
Broadband Access and Transport	-10.0%	-2.5%
Broadband Wireless	-43.0%	5.5%
Enterprise Networking	49.9%	17.5%
OSS/BSS	1.7%	-1.9%
Test and Measurement	-31.0%	-3.6%
Unified Comms and Contact Center	-15.4%	-0.8%
S&P 500	14.0%	7.8%
NASDAQ	18.8%	8.5%

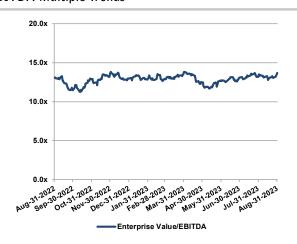
Revenue Multiple Trends



Sector and Sub Sector Revenue Multiples

	8/31/2023	8/31/2022
Telecom Technology	2.5x	2.4x
Large Cap	2.1x	2.0x
Broadband Access and Transport	1.8x	2.0x
Broadband Wireless	4.1x	7.6x
Enterprise Networking	5.1x	4.2x
OSS/BSS	2.5x	2.3x
Test and Measurement	1.8x	2.4x
Unified Comms and Contact Center	2.9x	3.8x

EBITDA Multiple Trends



Sector and Sub Sector EBITDA Multiples

	8/31/2023	8/31/2022
Telecom Technology	13.7x	13.1x
Large Cap	10.7x	9.7x
Broadband Access and Transport	18.9x	19.9x
Broadband Wireless	20.4x	43.0x
Enterprise Networking	23.1x	21.6x
OSS/BSS	12.8x	11.4x
Test and Measurement	11.7x	11.0x
Unified Comms and Contact Center	275.7x	NM



M&A Summary Comments

M&A

The level of M&A activity in the Telecom Technology sector continued to be relatively slow with only 13 transactions in the past three months. While this pace is on par with what we have seen thus far in 2023, it remains significantly behind the level of activity that we have seen in prior years. On the bright side, the total announced dollar volume of M&A transactions jumped up to \$1.4 billion this period, making this the first reporting period this year where we saw more than \$1 billion in total M&A activity. Through the first eight months of the year, the sector had a total of 42 transactions for a total announced transaction dollar value of just shy of \$1.7 billion. Both of these metrics remain low by historical standards.

Broadband Access and Transport

There were no transactions in the Broadband Access and Transport sub sector this period.

Broadband Wireless

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

Enterprise Networking

The Enterprise Networking sub sector was the TTI's most active sub sector over these past three months with a total of seven transactions. The sub sector's only deal with an announced transaction dollar value was Aerkomm's acquisition of wireless routing vendor Mesh Technology for \$16.5 million. We also noted that Cisco beefed up its routing capabilities with the acquisition of Code BGP. Finally, we noted that there were a number of transactions in the area of network performance monitoring. These were the

AppDirect acquisition of ADCom Solutions, the AirGap Networks purchase of NetSpyGlass and the BlueCat Networks pickup of Indeni.

OSS/BSS Software

Of the four deals in the OSS/BSS Software sub sector this period, Cisco accounted for three of them. All of Cisco's three deals (Accedian, SamKnows and Working Group Two) were in the broader network management space. In the sub sector's final transaction, OpenVault acquired network maintenance and troubleshooting vendor Nimble This.

Test and Measurement

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

Unified Communications and Contact Center

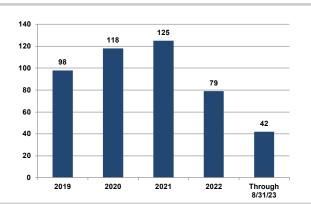
The Unified Communications and Contact Center sub sector was able to boast the largest single transaction in the TTI this period. This was the acquisition of Indian CPaaS vendor Route Mobile by Proximus Opal. At the other end of the spectrum, the smallest announced transaction dollar value was the OMIQ acquisition of unified communications and PBX vendor tadiran Telecom for \$15.3 million.

Transactions with Multiples

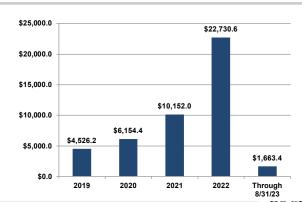
The two transactions with publicly available multiples were both in the Unified Communications and Contact Center sub sector. The Route Mobile acquisition had far and away the highest multiples for the period at 2.9x revenue and 22.4x EBITDA. The tadiran Telecom deal had much lower multiples of 0.6x revenue and 9.0x EBITDA.

Telecom Technology: M&A Summary

M&A Activity: Number of Transactions



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



M&A Announced Transactions (6/1/23 – 8/31/23)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
Cisco Systems	Working Group Two	OSS/BSS Software	8/10/23	\$150.0	Cloud-native mobile core network management SaaS and related APIs for telecom operators.
Aerkomm	Mesh Technology	Enterprise Networking	8/2/23	\$16.5	Designs and manufactures wireless routers for the enterprise market.
AppDirect	ADCom Solutions (VEEUE Platform)	Enterprise Networking	8/1/23	NA	Provides network and cloud monitoring, incident management and business intelligence software.
Cisco Systems	Code BGP	Enterprise Networking	8/1/23	NA	Open source-based border gateway protocol monitoring SaaS and related APIs for businesses.
Actility	Acklio	Enterprise Networking	7/20/23	NA	Provides IP-based low power wide area network SaaS with features for smart metering, IP connectivity, IoT connectivity and network management.
Proximus Opal	Route Mobile	Unified Communications and Contact Center	7/17/23	\$1,243.2	AI-based communications platform-as-a-service (CPaaS) solution.
Ubiik	MiMOMax Wireless	Enterprise Networking	7/17/23	NA	Wireless communications systems and control and monitoring software for the utility, government, public safety, mining, transport and energy sectors.
OpenVault	Nimble This	OSS/BSS Software	7/11/23	NA	Comprehensive software tool that enables service providers to proactively maintain and troubleshoot their networks.
OMNIQ	tadiran Telecom	Unified Communications and Contact Center	7/10/23	\$15.3	Provides unified communications and collaboration SaaS, PBX systems and related mobile applications for businesses.
Cisco Systems	SamKnows	OSS/BSS Software	6/27/23	NA	AI-based broadband network monitoring SaaS, APIs and SDKs and related mobile applications for businesses.
Airgap Networks	NetSpyGlass	Enterprise Networking	6/21/23	NA	Provides network performance monitoring and automation SaaS and related APIs for businesses.
Cisco Systems	Accedian	OSS/BSS Software	6/21/23	NA	AI and cloud-native-based network application performance monitoring and analytics SaaS, APIs and related SDK.
BlueCat Networks	Indeni	Enterprise Networking	6/2/23	NA	Network infrastructure monitoring and automation SaaS and related APIs for businesses.

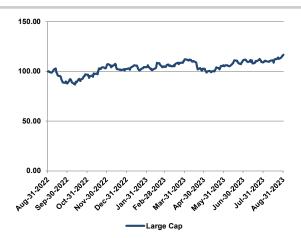
M&A Announced Transactions with Revenue Multiples (9/1/22 - 8/31/23)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
Proximus Opal	Route Mobile	Unified Communications and Contact Center	7/17/23	\$1,243.2	2.9 x	22.4 x	AI-based communications platform-as-a-service (CPaaS) solution.
OMNIQ	tadiran Telecom	Unified Communications and Contact Center	7/10/23	\$15.3	0.6 x	9.0 x	Provides unified communications and collaboration SaaS, PBX systems and related mobile applications for businesses.
Aviat Networks	NEC (Wireless Transport Business)	Broadband Wireless	5/9/23	\$70.0	0.5 x	NA	Radio communication, transmission and wireless transport systems for businesses in the communication sector.
Skyvera	Sterlite Technologies (Telecom Software Business)	OSS/BSS Software	1/31/23	\$15.0	0.7 x	NA	Network software, data & analytics and OSS and BSS business software.
Enghouse Systems	Qumu	Unified Communications and Contact Center	12/19/22	\$12.7	0.6 x	NM	Provider of cloud-based enterprise video technology.



Sub Sector Analysis: Large Cap

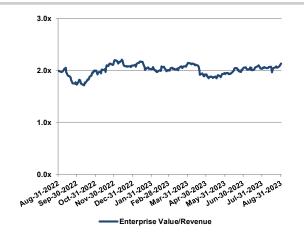
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Large Cap Index	16.9%	11.1%
Cisco	28.2%	15.5%
Ericsson	-30.6%	0.0%
Juniper	2.5%	-4.1%
Nokia	-20.8%	-1.1%
ZTE	37.4%	-1.3%

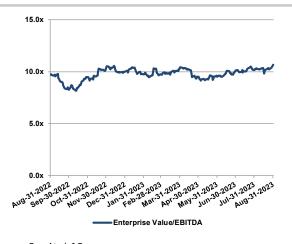
Revenue Multiple Trends



Company Revenue Multiples

	8/31/2023	8/31/2022
Large Cap Index	2.1x	2.0x
Cisco	3.8x	3.4x
Ericsson	0.7x	0.8x
Juniper	1.7x	2.0x
Nokia	0.7x	1.0x
ZTE	1.2x	0.8x

EBITDA Multiple Trends

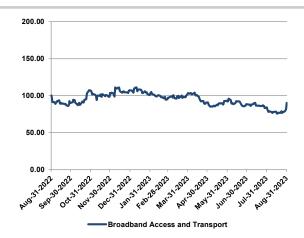


Company EBITDA Multiples

	8/31/2023	8/31/2022
Large Cap Index	10.7x	9.7x
Cisco	12.5x	11.0x
Ericsson	6.4x	5.3x
Juniper	11.8x	14.7x
Nokia	5.4x	8.0x
ZTE	14.9x	8.0x

Sub Sector Analysis: Broadband Access and Transport

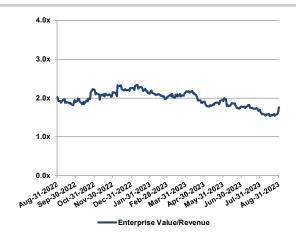
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Broadband Access & Transport Index	-10.0%	-2.5%
ADTRAN	-63.2%	-4.0%
BATM	-0.2%	13.9%
Calix	-21.0%	-0.2%
Casa Systems	-75.0%	-7.6%
CIENA	-1.5%	6.9%
Dasan Zhone Solutions	-82.6%	-61.3%
Harmonic	-5.2%	-39.4%
Infinera	-14.6%	-4.5%
Tejas Networks	36.4%	25.0%

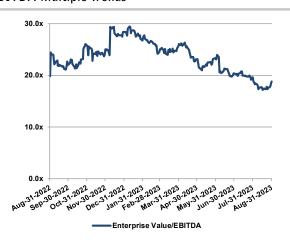
Revenue Multiple Trends



Company Revenue Multiples

	8/31/2023	8/31/2022
Broadband Access & Transport Index	1.8x	2.0x
ADTRAN	0.9x	2.8x
BATM	1.0x	0.9x
Calix	2.9x	4.9x
Casa Systems	0.8x	1.3x
CIENA	1.8x	1.9x
DASAN Zhone Solutions	0.3x	1.1x
Harmonic	2.0x	2.1x
Infinera	1.0x	1.2x
Tejas Networks	14.0x	14.2x

EBITDA Multiple Trends



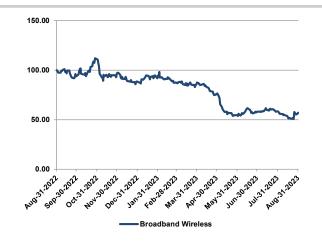
Company EBITDA Multiples

	8/31/2023	8/31/2022
Broadband Access & Transport Index	18.9x	19.9x
ADTRAN	NM	1826.3x
BATM	51.9x	NM
Calix	40.9x	54.7x
Casa Systems	NM	NM
CIENA	15.0x	15.8x
DASAN Zhone Solutions	NM	NM
Harmonic	20.2x	23.9x
Infinera	22.4x	NM
Tejas Networks	NM	NM



Sub Sector Analysis: Broadband Wireless

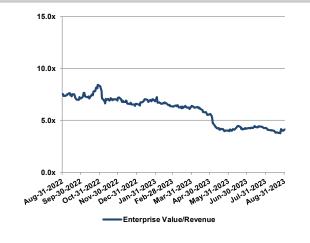
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Broadband Wireless Index	-43.0%	5.5%
Airspan Networks	-93.6%	-42.6%
Aviat Networks	12.6%	15.1%
Cambium Networks	-52.7%	-41.3%
Ceragon Networks	-11.8%	8.9%
Ubiquiti Networks	-43.6%	7.3%

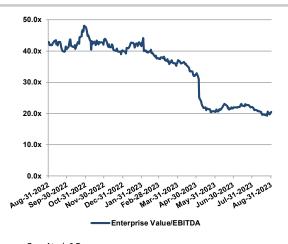
Revenue Multiple Trends



Company Revenue Multiples

	8/31/2023	8/31/2022
Broadband Wireless Index	4.1x	7.6x
Airspan Networks	1.2x	1.5x
Aviat Networks	1.1x	1.0x
Cambium Networks	0.8x	1.8x
Ceragon Networks	0.6x	0.7x
Ubiquiti Networks	6.0x	11.5x

EBITDA Multiple Trends

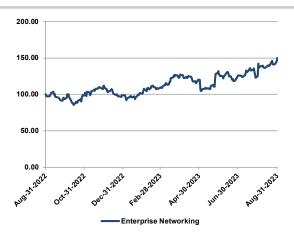


Company EBITDA Multiples

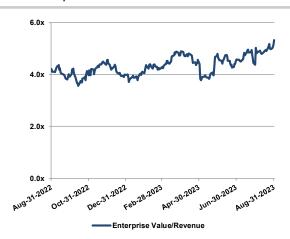
	8/31/2023	8/31/2022
Broadband Wireless Index	20.4x	43.0x
Airspan Networks	NM	NM
Aviat Networks	10.9x	9.1x
Cambium Networks	9.0x	35.1x
Ceragon Networks	12.1x	15.3x
Ubiquiti Networks	20.7x	40.9x

Sub Sector Analysis: Enterprise Networking

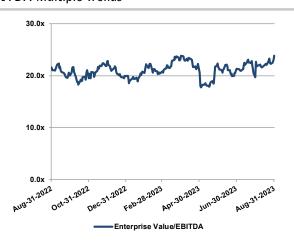
Twelve Month Index Returns



Revenue Multiple Trends



EBITDA Multiple Trends



Source: Capital IQ

Company Returns

	12 Month	3 Month
Enterprise Networking Index	49.9%	17.5%
A10 Networks	7.1%	0.0%
Accton	60.7%	30.7%
Aerohive Networks	-28.5%	12.4%
Arista Networks	62.9%	17.4%
D-Link	42.6%	15.7%
Extreme Networks	91.6%	33.3%
F5 Networks	4.2%	10.9%
NetGear	-44.1%	-6.1%
Radware	-19.5%	-12.1%
Unizyx Holding (Zyxel)	44.9%	2.8%

Company Revenue Multiples

	8/31/2023	8/31/2022
Enterprise Networking Index	5.1x	4.2x
A10 Networks	3.5x	3.4x
Accton	3.0x	2.2x
Aerohive Networks	4.0x	2.1x
Arista Networks	10.8x	9.6x
D-Link	0.8x	0.5x
Extreme Networks	2.7x	1.8x
F5 Networks	3.3x	3.5x
NetGear	0.3x	0.5x
Radware	1.5x	2.1x
Unizyx Holding (Zyxel)	0.5x	0.4x

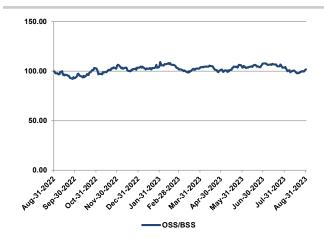
Company EBITDA Multiples

	8/31/2023	8/31/2022
Enterprise Networking Index	23.1x	21.6x
A10 Networks	16.6x	17.9x
Accton	21.5x	19.8x
Aerohive Networks	13.1x	9.7x
Arista Networks	28.7x	28.2x
D-Link	19.6x	21.4x
Extreme Networks	24.6x	18.0x
F5 Networks	15.9x	16.7x
NetGear	NM	263.1x
Radware	NM	24.5x
Unizyx Holding (Zyxel)	6.5x	6.8x



Sub Sector Analysis: OSS/BSS Software

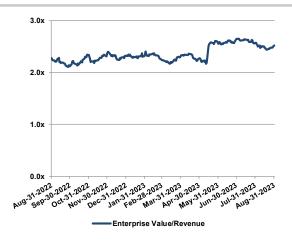
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
OSS/BSS Index	1.7%	-1.9%
Amdocs	4.4%	-5.3%
CSG Systems	-6.1%	13.2%
Lumine Group	NA	15.5%
NetScout	-9.8%	-6.2%
Optiva	-77.4%	-47.9%
Radcom	-25.5%	-5.3%
Subex	0.5%	33.3%
Synchronoss	-38.3%	4.2%
Tecnotree	-10.9%	11.5%

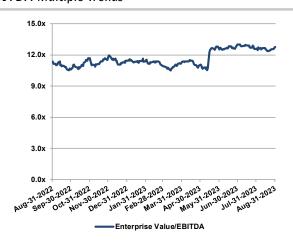
Revenue Multiple Trends



Company Revenue Multiples

	8/31/2023	8/31/2022
OSS/BSS Index	2.5x	2.3x
Amdocs	2.2x	2.3x
CSG Systems	1.7x	2.0x
Lumine Group	11.1x	NA
NetScout Systems	2.0x	2.5x
Optiva	1.8x	2.6x
Radcom	1.2x	2.4x
Subex	7.2x	5.7x
Synchronoss	1.3x	1.4x
Tecnotree	1.9x	2.3x

EBITDA Multiple Trends



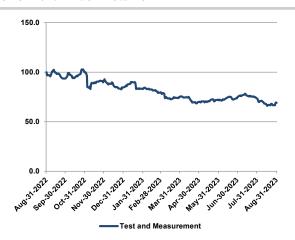
Company EBITDA Multiples

	8/31/2023	8/31/2022
OSS/BSS Index	12.8x	11.4x
Amdocs	11.8x	12.0x
CSG Systems	11.2x	13.5x
Lumine Group	56.5x	NA
NetScout Systems	11.0x	14.8x
Optiva	12.9x	11.9x
Radcom	NM	NM
Subex	NM	91.8x
Synchronoss	124.0x	17.2x
Tecnotree	6.4x	7.5x



Sub Sector Analysis: Test and Measurement

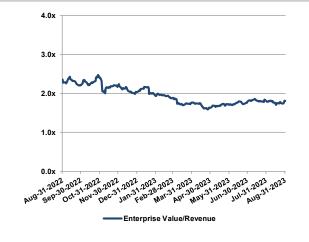
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Test and Measurement Index	-31.0%	-3.6%
Anritsu	-38.4%	-14.6%
Spirent	-33.8%	-10.6%
Viavi	-25.8%	6.2%

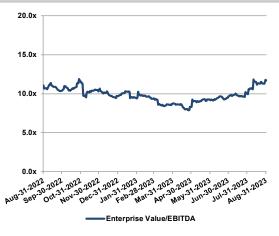
Revenue Multiple Trends



Company Revenue Multiples

	8/31/2023	8/31/2022
Test and Measurement Index	1.8x	2.4x
Anritsu	1.0x	1.6x
Spirent	1.8x	2.8x
Viavi	2.3x	2.6x

EBITDA Multiple Trends



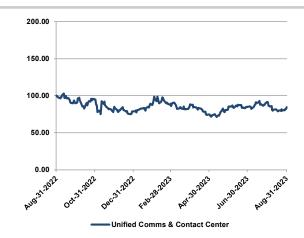
Company EBITDA Multiples

	8/31/2023	8/31/2022
Test and Measurement Index	11.7x	11.0x
Anritsu	7.5x	8.0x
Spirent	10.4x	12.9x
Viavi	16.7x	12.9x

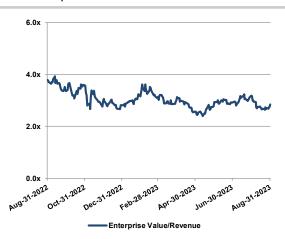


Sub Sector Analysis: Unified Communications and Contact Center

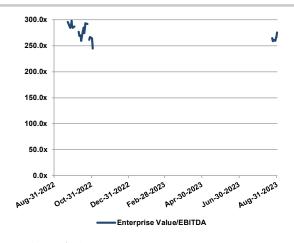
Twelve Month Index Returns



Revenue Multiple Trends



EBITDA Multiple Trends



Source: Capital IQ

Company Returns

	12 Month	3 Month
Unified Comms & Contact Center Index	-15.4%	-0.8%
8x8	-37.6%	-20.3%
Crexendo	-29.9%	22.1%
Enghouse Systems	-7.7%	-18.4%
Five9	-26.2%	9.5%
LiveVox	50.5%	16.7%
RingCentral	-28.1%	-10.9%
Sangoma Technologies	-54.9%	13.5%
Twilio	-8.4%	-8.5%
Verint	-33.2%	-9.7%
Zoom	-11.7%	5.8%

Company Revenue Multiples

	8/31/2023	8/31/2022
Unified Comms & Contact Center Index	2.9x	3.8x
8x8	1.1x	1.6x
Crexendo	1.1x	1.8x
Enghouse Systems	3.3x	3.5x
Five9	6.2x	10.2x
LiveVox	2.1x	1.4x
RingCentral	2.1x	3.1x
Sangoma Technologies	0.9x	1.3x
Twilio	2.2x	2.8x
Verint	3.1x	4.2x
Zoom	3.5x	4.3x

Company EBITDA Multiples

	8/31/2023	8/31/2022
	0/31/2023	0/31/2022
Unified Comms & Contact Center Index	275.7x	NM
8x8	NM	NM
Crexendo	NM	NM
Enghouse Systems	14.0x	13.2x
Five9	NM	NM
LiveVox	NM	NM
RingCentral	501.5x	NM
Sangoma Technologies	30.2x	22.1x
Twilio	NM	NM
Verint	21.1x	35.2x
Zoom	44.6x	22.0x



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

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