

FOCUS Telecom  
Technology and Services Group  
Carrier-Focused  
Telecom Technology  
Quarterly

Summer 2014 Report

Vol. 4, No. 3

FOCUS

Investment Banking

Seasoned, Systematic, Successful<sup>SM</sup>

## Investment Banking and Advisory Services

FOCUS Investment Banking LLC is a leading investment bank with specialized telecom technology and services expertise, concentrating on providing four highly-tailored services to emerging middle market and larger organizations in this sector:

Sellside Assignments  
Buyside Engagements  
Capital Formation  
Valuation and Fairness Options

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# Carrier-Focused Telecom Technology Quarterly

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

The FOCUS Telecom Technology and Services group consists of four professionals with a mix of backgrounds that include both C-level operating expertise and experience at leading middle market investment banks. The FOCUS Telecom team is uniquely qualified to help middle market clients reach their strategic objectives because the group:

- Devotes significant senior level resources to executing transactions for lower middle market clients,
- Has a breadth of knowledge that covers most segments of the telecom industry,
- Has bankers with C-level operating experience in the telecom industry,
- Has a proven transaction methodology for delivering results,
- Is equally comfortable with buy side and sell side M&A,
- Leverages an experienced team of research professionals,
- Has a national presence with coverage of both east and west coasts.

In 2014, members of the FOCUS Telecom team will be attending many conferences and meetings throughout the U.S. and are always delighted to receive introductions to

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

## Sub Sector Definitions

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

## Summary Comments

### Public Markets

FOCUS' Carrier-Focused Telecom Technology Index (CFTTI) showed a moderate increase for this three month period with a gain of 3.4%. This was on par with the 3.4% gain in the S&P 500 and significantly better than the 1.5% loss in the NASDAQ. Performance was mixed, with three of our sub sectors posting gains and four showing losses. On a year-over-year basis, the CFTTI is up a strong 15.6%. However, even with this strong gain, it still trails the broader market gains of 18.0% in the S&P 500 and 22.8% in the NASDAQ. As these gains might suggest, sector multiples also are up year-over-year. The sector revenue multiple jumped from 1.1x to 1.4x and the sector EBITDA expanded from 8.8x to 9.1x. These multiples also are up from the sector multiples reported in our Spring issue.

### Large Cap

The Large Cap sub sector returned 5.8% for the three month period. This enabled it to edge out Cable and Video as the best performing sub sector for our Summer reporting period. Cisco was the main driver of the increase with a gain of 12.9%. We also note the Large Cap sub sector now includes Nokia. With the divestiture of its handset business, we feel Nokia now has a high enough portion of its revenue coming from carrier equipment and software sales to justify inclusion in the index, and it had a nice debut with a gain of 4.8% for the period. The Large Cap sub sector multiples ended the quarter at 1.4x revenue and 8.4x EBITDA. Both multiples are higher than the year ago period.

### OSS/BSS/Software

The OSS/BSS Software sub sector had a small gain of 2.0% for the three month period. Eight of the 13 stocks in the index were down, but an 8.2% gain at Amdocs and a 21.3% gain at Subex propelled the sub sector into positive territory. Even after this period's small gain, the sub sector is still up nearly 30% compared to 12 months ago. These gains are broad-based, with eight companies enjoying gains in excess of 20% during this period. Multiples over the last 12 months have expanded. The sub sector revenue multiple grew from 1.5x to 1.8x, while the sub sector EBITDA multiple increased from 9.1x to 10.8x.

### IP Networking

Continuing its whipsaw performance, the IP Networking sub sector followed a sharp uptick in our last report with a downward swing of nearly 15% for this three month period. The only two companies to buck the trend and emerge with a positive return for the period were Dialogic

and Sandvine. The Sandvine performance is particularly impressive. After spending a significant amount of time as the laggard in the DPI space behind Allot and Procera, it now trades at a premium to either of these two companies. Tellingly, Sandvine also has significantly higher EBITDA margins than either of these two competitors. Despite the losses in the sub sector, the revenue multiple held steady at 2.2x while the EBITDA multiple actually increased to a not particularly meaningful 257.6x. This high EBITDA multiple shines a spotlight on a key issue the market is having with this sub sector, namely, many of these companies are having difficulty generating meaningful cash flow.

### Wireline Access and Transport

The Wireline Access and Transport sub sector also was down sharply for our Summer reporting period with a loss of 5.5%. One of the top performers for the three month period was Cyan. This is a welcome reversal for a company that has had a rocky time of it since its IPO less than a year ago when the company was trading at more than 6x revenue. After losing more than 70% of its value in the past year, the company now trades at a revenue multiple of 1.2x. On the other hand, optical transport vendors CIENA and Transmode had a rough time of it during this period. Each posted losses of more than 20%. After the declines in this three month period, multiples in the Wireline Access and Transport sub sector now stand at 1.2x revenue and 26.5x EBITDA.

### Cable and Video

Cable and Video continues to be the most consistent sub sector in the CFTTI. After being the best performing sub sector in our Spring report, the sub sector follows up with a 5.4% gain that is good enough for second place in this Summer reporting period. While the sub sector overall looked strong, gains were entirely due to a 15.4% gain at sub sector leader Arris and an 11.6% gain at Harmonic. Other companies did not fare as well. Most notably, Pace and SeaChange each lost nearly 10%. Sub sector multiples are higher than the year ago period. The sub sector revenue multiple is now 1.1x (up from 0.8x) and the sub sector EBITDA multiple is now 11.5x (up from 10.0x).

### Broadband Wireless

The Broadband Wireless sub sector was far and away the worst performing sub sector with a loss of 29.4% for this three month period. Ubiquiti Networks has come to drive the performance of this sub sector, so Ubiquiti's loss of 29.2% closely mirrored the loss of the overall sub sector. However, other companies in the sub sector did not fare particularly well either and none were in positive terri-

tory for the period. The sub sector revenue multiple is a respectable 2.4x, but it is important to note the next highest revenue multiple after Ubiquity Network's 5.5x is Redline Communications at 1.0x. The sub sector EBITDA multiple is 25.3x.

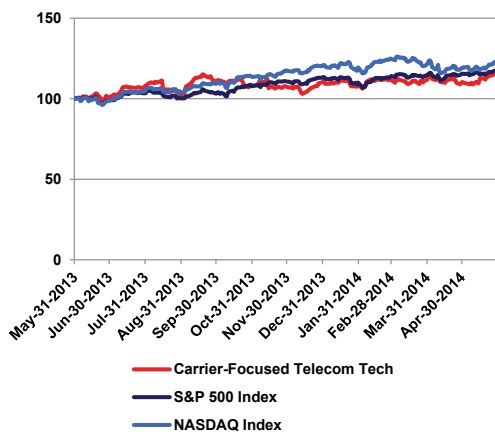
### Test and Measurement

The Test and Measurement sub sector was another sub sector that had a challenging time in this Summer reporting period. The sub sector declined 14.9%. Only Anite was

able to end the three month period in positive territory. The sector's newest IPO, Gigamon, also got kicked around a bit as it declined nearly 50%. Unfortunately Gigamon was in good company. Sector bellwether JDS Uniphase also showed a decline of slightly more than 20%. The sub sector revenue multiple declined from 1.8x a year ago to its current level of 1.5x. The sub sector EBITDA multiple moved in the opposite direction and increased from 11.5x to 12.1x in this same time frame. This indicates that EBITDA margins for the sub sector contracted.

## Carrier-Focused Telecom Technology: Public Market Summary

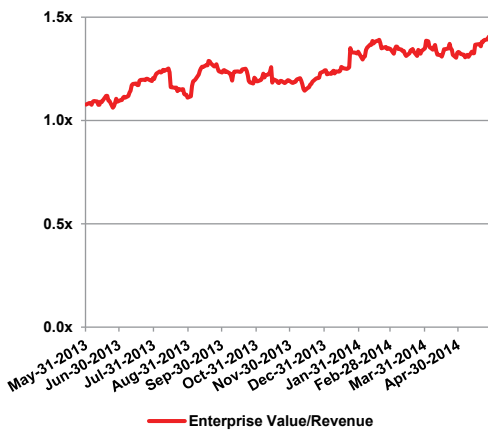
Twelve Month Index Returns



Sector and Sub Sector Returns

	12 Month	3 Month
Carrier-Focused Telecom Tech	15.6%	3.4%
Large Cap	15.7%	5.8%
OSS/BSS	29.6%	2.0%
IP Networking	1.7%	-14.8%
Wireline Access and Transport	-5.5%	-11.5%
Cable and Video	75.0%	5.4%
Broadband Wireless	58.4%	-29.4%
Test and Measurement	-18.9%	-14.9%
S&P 500	18.0%	3.4%
NASDAQ	22.8%	-1.5%

Revenue Multiple Trends

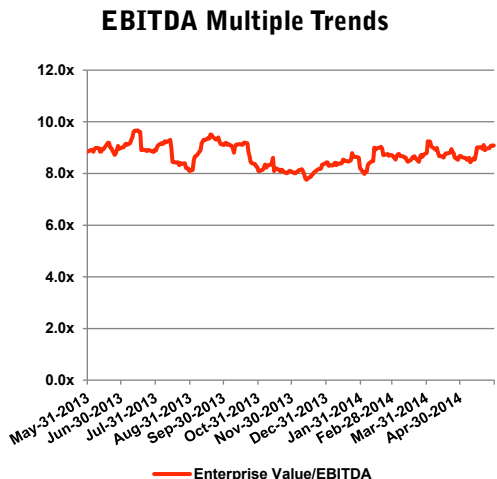


Sector and Sub Sector Revenue Multiples

	5/31/2014	5/31/2013
Carrier-Focused Telecom Tech	1.4x	1.1x
Large Cap	1.4x	1.0x
OSS/BSS	1.8x	1.5x
IP Networking	2.2x	2.2x
Wireline Access and Transport	1.2x	1.5x
Cable and Video	1.1x	0.8x
Broadband Wireless	2.4x	1.4x
Test and Measurement	1.5x	1.8x

Source: Capital IQ

## Carrier-Focused Telecom Technology: Public Market Summary (continued)



Source: Capital IQ

### Sector and Sub Sector EBITDA Multiples

	5/31/2014	5/31/2013
Carrier-Focused Telecom Tech	9.1x	8.8x
Large Cap	8.4x	8.2x
OSS/BSS	10.8x	9.1x
IP Networking	257.6x	118.9x
Wireline Access and Transport	26.5x	48.9x
Cable and Video	11.5x	10.0x
Broadband Wireless	25.3x	20.0x
Test and Measurement	12.1x	11.5x

## Carrier-Focused Telecom Technology Stocks

### M&A

M&A activity in the Carrier Focused Telecom Technology sector fell off the proverbial cliff this most recent three month period. We counted a mere 11 transactions for just \$321 million in announced transaction value. In terms of transaction volume, this reporting period is the slowest in recent memory, and only three of our sub sectors had any M&A activity at all. The year-to-date M&A totals are also somewhat anemic with only 22 transactions for slightly more than \$600 million. While the overall buoyancy in the general M&A market would seem to indicate that the recent slowdown in activity is just a “blip,” the situation certainly bears close monitoring.

### OSS/BSS Software

As usual, the OSS/BSS software sub sector was our most active, although with only five total transactions volume was very light. Nevertheless, we still noted some interesting transactions in the period. EXFO acquired analytics provider Bytesphere, highlighting the blurring of the lines between the Test and Measurement sub sector and the OSS/BSS Software sub sector. Bytesphere was not the only transaction in the very hot analytics space. We also saw mobile analytics provider Zettics deepens its capabilities in network analysis and customer experience assurance with the acquisition of Velocent. Finally, Synchronoss Technologies headed back out on the M&A trail with the acquisition of the VoxMobili division of OnMobile.

VoxMobili provides subscriber address book management solutions and complements Synchronoss’ existing product offerings.

### IP Networking

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

### Wireline Access and Transport

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

### Cable and Video

The Cable and Video sub sector saw three transactions for the period. The largest transaction was Kudelski’s acquisition of the Conax division of Telenor for approximately \$250 million. ARRIS made its first acquisition since the Motorola Home acquisition, which would seem to indicate it has progressed far enough along in the integration of the Motorola deal to look at other opportunities. In this case, ARRIS acquired streaming video delivery firm SeaWell Networks. In the final transaction in the Cable and Video sub sector, Image Communications acquired encoding and transcoding company Digital Rapids. The acquisitions rounds out Imagine’s capabilities in software-based workflow management and transcoding.

## Broadband Wireless

Despite the sub sector's challenges in the public markets, the Broadband Wireless sub sector still saw two M&A deals for the period. First, Westell acquired in-building wireless provider Cellular Specialties. The in-building area remains very active across multiple areas of Telecom, and investors appear to be betting that it will be a strong area of growth for the wireless industry. In the second transaction for the period, cell phone booster provider xBoost agreed to be acquired by Wislon Electronics.

## Test and Measurement

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

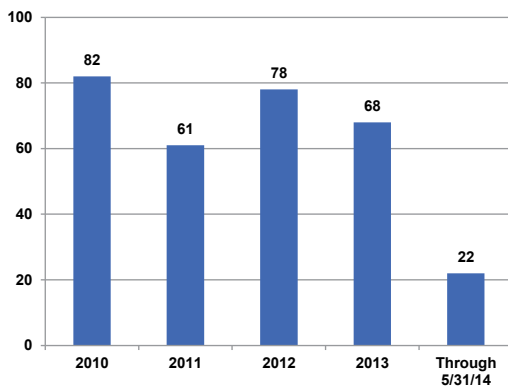
## Transactions with Multiples

This reporting period saw three transactions with announced multiples. The period's largest acquisition in terms of announced dollar volume, the acquisition of Conax by Kudelski, was done at 2.4x revenue and 6.2x EBITDA. This made it the highest revenue multiple transaction for the period, although the modest EBITDA multiple indicates that the valuation was not particularly frothy. The next highest multiple was associated with the Synchronoss acquisition of VoxMobili. This transaction was done at approximately 1.5x revenue. Finally, the Westell acquisition of Cellular Specialties brought up the rear in terms of revenue multiples with a valuation of 1.1x revenue.

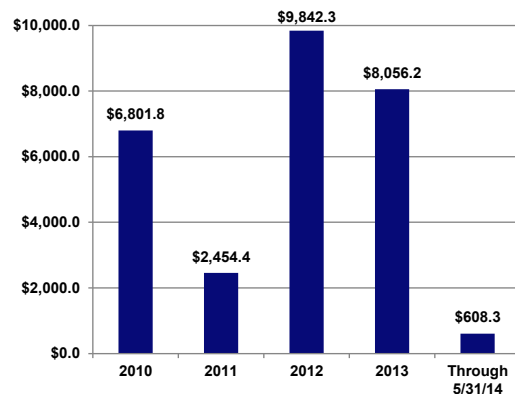
## Carrier-Focused Telecom Technology: M&A Summary

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



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



## Announced Transactions (3/1/14 – 5/31/14)

Acquiror	Target	Date Announced	Sector	Purchase Price	Description
Syniverse Technologies	Aicent	5/13/14	OSS/BSS Software	NA	Mobile messaging and value added services to help carriers maximize roaming and inter-carrier service revenue and profitability.
WidePoint	Soft-ex	5/6/14	OSS/BSS Software	\$6.0	Web-based telecom data intelligence and telecom expense management tools for mobile and fixed operators and enterprises.
Synchronoss Technologies	OnMobile (VoxMobili Division)	5/3/14	OSS/BSS Software	\$26.0	Solution for mobile operators that enables subscribers to manage, store and sync address book and link contacts with social networks.
Zettics	Velocent	4/29/14	OSS/BSS Software	NA	Customer experience service assurance monitoring solutions for mobile broadband operators.
ARRIS	SeaWell Networks	4/18/14	Cable and Video	NA	Online video delivery software solutions for network operators to help them manage and optimize the delivery of streaming video.
EXFO	Bytesphere	4/7/14	OSS/BSS Software	NA	IT management software solutions that collect, analyze, correlate and report on current, historical, and predicted events in the network.
Imagine Communications	Digital Rapids	4/7/14	Cable and Video	NA	Encoding and transcoding solutions which include both standard definition and high definition encoding and streaming systems.
Mercury Networks	PureWave (WiMax Business)	3/27/14	Broadband Wireless	NA	Compact outdoor base stations for the 4G wireless market that utilize WiMAX technology.
Kudelski	Teleneor Broadcast Holding (Conax Division)	3/26/14	Cable and Video	\$249.6	Solutions for securing multi-device and digital TV services for cable, satellite, terrestrial and IPTV operators.
Wilson Electronics	xBoost	3/5/14	Broadband Wireless	NA	Cell phone signal booster kits for home, office, car and commercial settings.
Westell	Cellular Specialties	3/3/14	Broadband Wireless	\$39.0	In-building wireless connectivity products including digital repeaters and modems and distributed antenna system interface units.

## Announced Transactions with Revenue Multiples (6/1/13 – 5/31/14)

Acquiror	Target	Date Announced	Sector	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
Synchronoss Technologies	OnMobile (VoxMobili Division)	5/3/14	OSS/BSS Software	\$26.0	1.5 x	NA	Solution for mobile operators that enables subscribers to manage, store and sync address book and link contacts with social networks.
Kudelski	Teleneor Broadcast Holding (Conax Division)	3/26/14	Cable and Video	\$249.6	2.4 x	6.2 x	Solutions for securing multi-device and digital TV services for cable, satellite, terrestrial and IPTV operators.
Westell	Cellular Specialties	3/3/14	Broadband Wireless	\$39.0	1.1 x	NA	In-building wireless connectivity products including digital repeaters and modems and distributed antenna system interface units.
Aeroflex	Shenick	2/6/14	Test and Measurement	\$28.5	3.0 x	NA	Per-flow Internet protocol test and measurement solutions for virtualized and physical network infrastructure.
Sonus Networks	Performance Technologies	12/13/13	IP Networking	\$41.5	1.6 x	28.0 x	Diameter and SS7 signaling and multi-protocol gateways and servers.
JDS Uniphase	Network Instruments	12/11/13	Test and Measurement	\$200.0	5.0 x	NA	Network troubleshooting and analysis solutions including packet capture, application management and data collection and analysis.
Ixia	Net Optics	10/29/13	Test and Measurement	\$190.0	3.4 x	NA	Network and virtualization taps and application-aware network performance monitoring solutions and network packet brokers.
Pace	Aurora Networks	10/23/13	Cable and Video	\$310.0	1.4 x	10.3 x	Optical transport systems including headend and hub products, CWDM Ethernet access systems and optical node products.
Marlin Equity	Tellabs	10/21/13	Wireline Access and Transport	\$329.9	0.4 x	84.6 x	Digital cross-connect systems, managed transport systems and Metro Ethernet switching products as well as access solutions.
Valley Telecom	Alvarion	8/26/13	Broadband Wireless	\$3.9	0.1 x	NM	Wireless products that enable the delivery of business and residential broadband access over a variety of frequency bands.
Anite	Genetel	7/2/13	Test and Measurement	\$2.0	0.2 x	NA	Solutions for mobile networks including quality of service/ experience, network optimization and planning and performance management.
Nokia	Nokia Siemens Networks	7/1/13	Large Cap	\$2,758.6	0.2 x	1.2 x	Provides telecommunications infrastructure primarily related to the mobile broadband market.
Thoma Bravo	Keynote Systems	6/24/13	Test and Measurement	\$340.8	2.8 x	23.1 x	Mobile and Web cloud testing and monitoring services that offer visibility into the performance and availability of Web transactions.

## Sub Sector Analysis: Large Cap

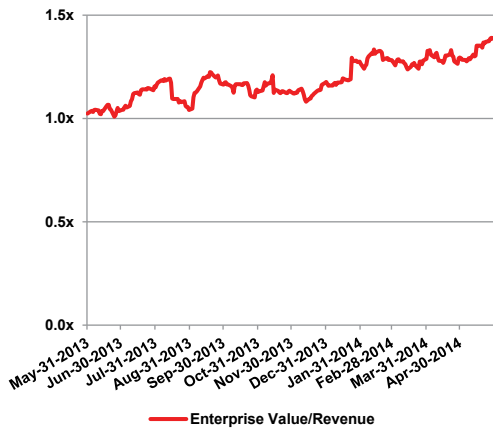
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Large Cap Index	15.7%	5.8%
Aicatel-Lucent	137.8%	-6.5%
Cisco	2.1%	12.9%
Ericsson	6.7%	-3.6%
Juniper	38.0%	-8.5%
Nokia	135.9%	4.8%
ZTE	2.3%	-1.6%

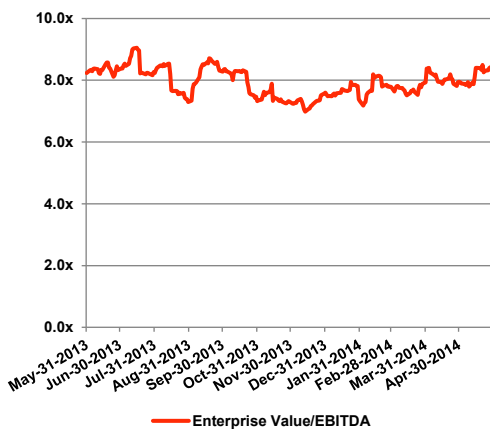
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
Large Cap Index	1.4x	1.0x
Aicatel-Lucent	0.6x	0.3x
Cisco	2.0x	2.0x
Ericsson	0.9x	0.9x
Juniper	2.1x	1.7x
Nokia	1.6x	0.2x
ZTE	0.8x	0.7x

### EBITDA Multiple Trends



### Company EBITDA Multiples

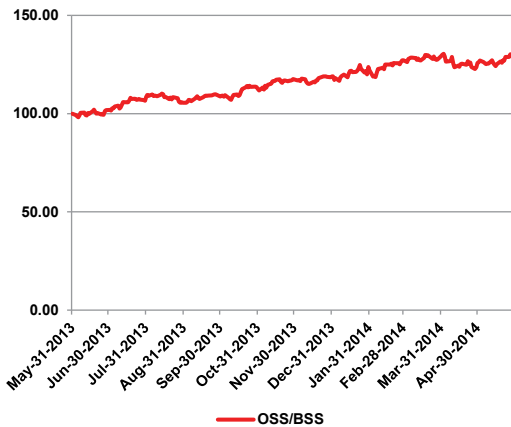
	5/31/2014	5/31/2013
Large Cap Index	8.4x	8.2x
Aicatel-Lucent	11.6x	138.6x
Cisco	7.5x	7.3x
Ericsson	6.8x	7.7x
Juniper	12.3x	11.3x
Nokia	11.5x	5.7x
ZTE	15.2x	NM

Source: Capital IQ



## Sub Sector Analysis: OSS/BSS Software

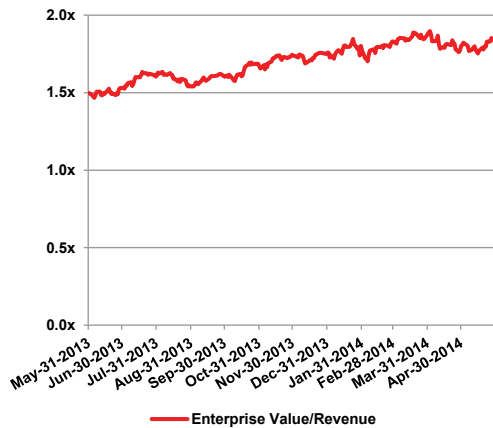
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
OSS/BSS Index	29.6%	2.0%
Amdocs	34.8%	8.2%
AsialInfo-Linkage	-16.9%	-2.9%
Astellia	-6.1%	-14.5%
Comptel	39.5%	11.6%
Comverse	-17.1%	-28.5%
CSG Systems	21.5%	-6.2%
Evolving Systems	24.7%	-3.9%
NetScout Systems	59.6%	2.3%
Radcom	80.7%	-8.3%
Redknee	85.5%	4.9%
Subex	40.9%	21.3%
Synchronoss	1.3%	-7.6%
Tecnotree	5.2%	-21.0%

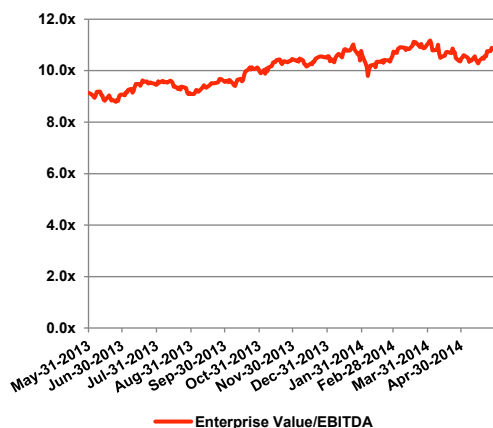
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
OSS/BSS Index	1.8x	1.5x
Amdocs	1.9x	1.4x
AsialInfo-Linkage	3.6x	4.1x
Astellia	0.5x	0.7x
Comptel	0.8x	0.7x
Comverse	0.5x	0.6x
CSG Systems	1.3x	1.1x
Evolving Systems	3.3x	2.3x
NetScout Systems	3.6x	2.5x
Radcom	1.9x	1.4x
Redknee	2.1x	4.0x
Subex	2.6x	2.3x
Synchronoss	3.4x	4.1x
Tecnotree	0.7x	0.5x

### EBITDA Multiple Trends



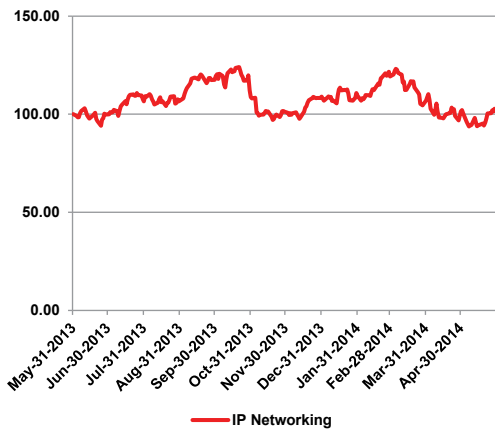
### Company EBITDA Multiples

	5/31/2014	5/31/2013
OSS/BSS Index	10.8x	9.1x
Amdocs	10.4x	7.8x
AsialInfo-Linkage	10.4x	12.5x
Astellia	6.9x	29.4x
Comptel	7.4x	44.3x
Comverse	6.7x	5.5x
CSG Systems	8.0x	6.1x
Evolving Systems	15.4x	8.5x
NetScout Systems	15.2x	10.8x
Radcom	NM	NM
Redknee	37.7x	95.3x
Subex	10.7x	16.6x
Synchronoss	14.2x	18.9x
Tecnotree	9.2x	NM

Source: Capital IQ

## Sub Sector Analysis: IP Networking

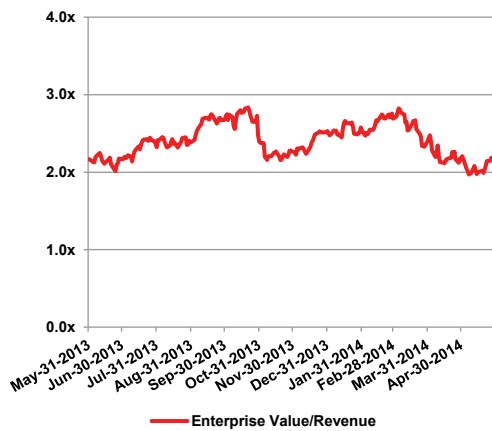
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
IP Networking Index	1.7%	-14.8%
Allot Communications	7.4%	-21.0%
Audiocodes	53.9%	-27.9%
Broadsoft	-22.2%	-28.1%
Dialogic	53.4%	49.3%
Mavenir Systems	NA	-13.9%
Procera Networks	-34.5%	-12.3%
Radisys	-34.8%	-21.4%
Ruckus Wireless	-13.7%	-22.9%
Sandvine	75.1%	18.5%
SONUS Networks	14.3%	-1.6%

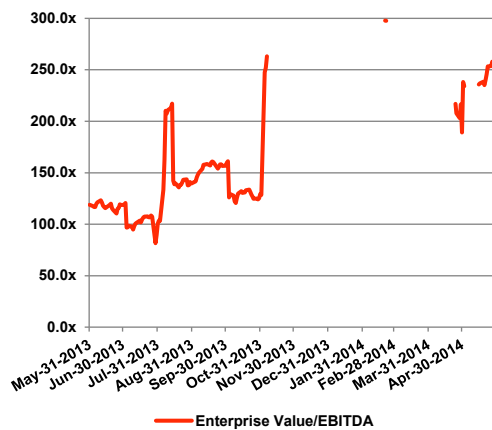
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
IP Networking Index	2.2x	2.2x
Allot Communications	3.1x	2.6x
Audiocodes	1.4x	1.0x
Broadsoft	2.9x	4.2x
Dialogic	0.8x	0.5x
Mavenir Systems	2.9x	NA
Procera Networks	1.2x	3.0x
Radisys	0.5x	0.5x
Ruckus Wireless	2.6x	3.5x
Sandvine	3.5x	2.0x
SONUS Networks	2.6x	2.7x

### EBITDA Multiple Trends



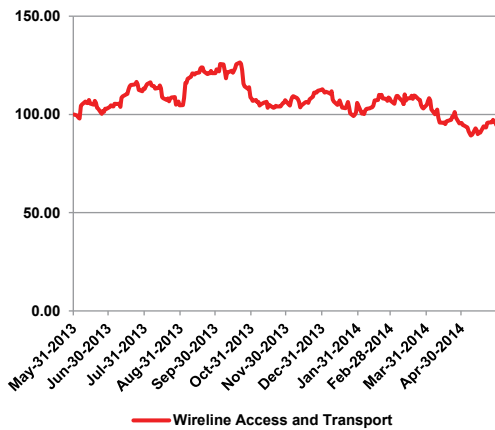
### Company EBITDA Multiples

	5/31/2014	5/31/2013
IP Networking Index	257.6x	118.9x
Allot Communications	560.4x	38.8x
Audiocodes	34.6x	102.2x
Broadsoft	NM	30.4x
Dialogic	30.0x	NM
Mavenir Systems	NM	NA
Procera Networks	NM	203.9x
Radisys	NM	123.1x
Ruckus Wireless	112.1x	44.3x
Sandvine	13.0x	13.7x
SONUS Networks	107.0x	NM

Source: Capital IQ

## Sub Sector Analysis: Wireline Access and Transport

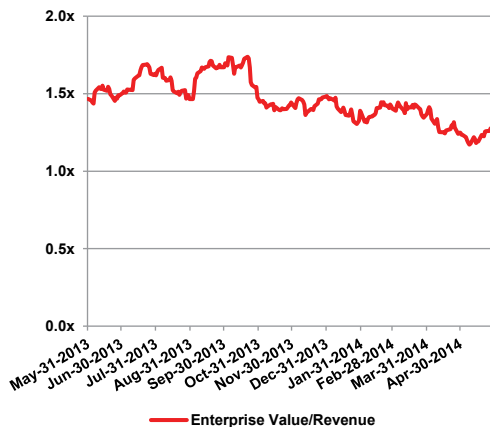
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Wireline Access & Transport Index	-5.5%	-11.5%
ADTRAN	-2.9%	-14.4%
ADVA	-12.8%	-5.6%
BATM	-4.3%	11.0%
Calix	-22.1%	2.6%
CIENA	15.9%	-21.0%
Communications Systems	11.6%	-15.7%
Cyan	-72.2%	10.4%
Infinera	-13.6%	9.4%
MRV Communications	41.7%	-10.1%
Net Insight	54.3%	4.3%
Orckit Communications	-75.0%	-33.4%
Transmode Systems	7.1%	-23.6%
Zhone Technologies	252.3%	-20.3%

### Revenue Multiple Trends

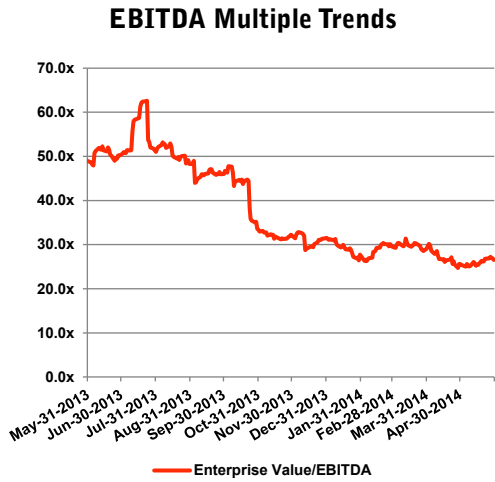


### Company Revenue Multiples

	5/31/2014	5/31/2013
Wireline Access & Transport Index	1.2x	1.5x
ADTRAN	1.8x	1.9x
ADVA	0.4x	0.5x
BATM	0.7x	0.8x
Calix	0.9x	1.4x
CIENA	1.3x	1.3x
Communications Systems	0.6x	0.6x
Cyan	1.2x	6.4x
Infinera	1.6x	2.3x
MRV Communications	0.5x	0.2x
Net Insight	1.7x	1.1x
Orckit Communications	1.9x	1.8x
Transmode Systems	1.9x	1.7x
Zhone Technologies	0.8x	0.2x

Source: Capital IQ

## Sub Sector Analysis: Wireline Access and Transport *continued*



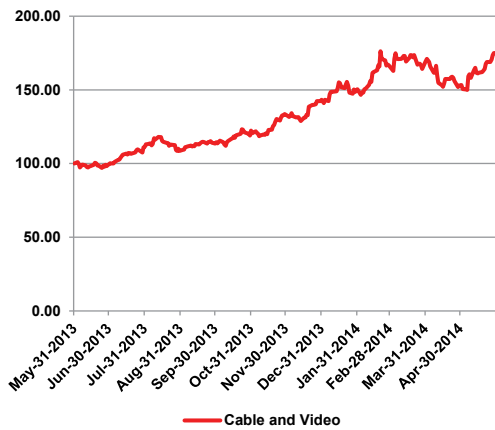
Source: Capital IQ

### Company EBITDA Multiples

	5/31/2014	5/31/2013
Wireline Access & Transport Index	26.5x	48.9x
ADTRAN	17.0x	19.6x
ADVA	7.2x	6.1x
BATM	74.4x	68.1x
Calix	62.7x	209.4x
CIENA	19.1x	28.1x
Communications Systems	7.5x	11.8x
Cyan	NM	NM
Infinera	69.5x	NM
MRV Communications	NM	NM
Net Insight	24.6x	NM
Orckit Communications	NM	NM
Transmode Systems	13.0x	9.5x
Zhone Technologies	19.5x	NM

## Sub Sector Analysis: Cable and Video

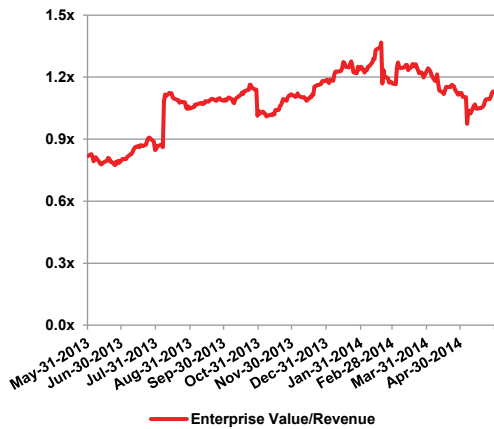
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Cable and Video Index	75.0%	5.4%
Amino	21.4%	-4.2%
Arris	118.8%	15.4%
Envivio	33.7%	-38.5%
Harmonic	18.7%	11.6%
NetGem	42.0%	1.6%
Pace	64.6%	-9.6%
SeaChange	-11.0%	-9.2%

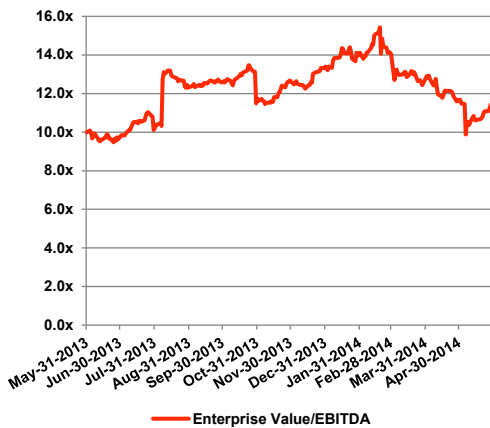
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
Cable and Video Index	1.1x	0.8x
Amino	0.8x	0.6x
Arris	1.3x	1.2x
Envivio	0.4x	NM
Harmonic	1.1x	1.0x
NetGem	1.1x	0.7x
Pace	0.8x	0.5x
SeaChange	1.4x	1.5x

### EBITDA Multiple Trends



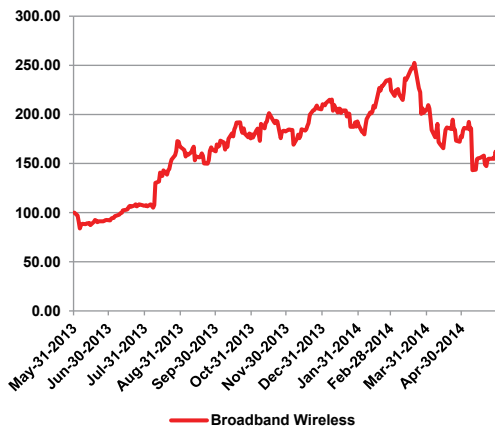
### Company EBITDA Multiples

	5/31/2014	5/31/2013
Cable and Video Index	11.5x	10.0x
Amino	4.8x	5.6x
Arris	12.1x	10.8x
Envivio	NM	NM
Harmonic	17.7x	21.2x
NetGem	7.5x	4.5x
Pace	8.8x	6.8x
SeaChange	972.6x	26.2x

Source: Capital IQ

## Sub Sector Analysis: Broadband Wireless

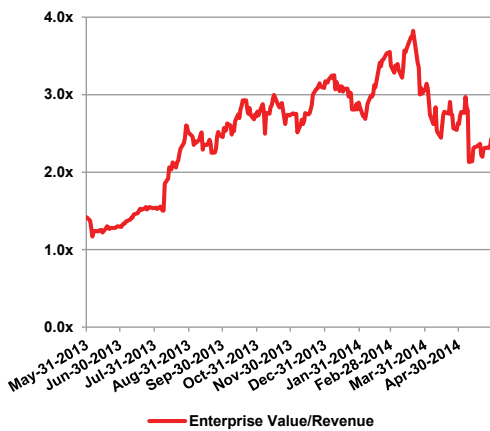
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Broadband Wireless Index	58.4%	-29.4%
Aviat Networks	-60.0%	-45.6%
Ceragon Networks	-40.2%	-28.3%
DragonWave	-51.1%	-5.8%
Redline Communications	-56.2%	-0.2%
Ubiquiti Networks	84.9%	-29.2%

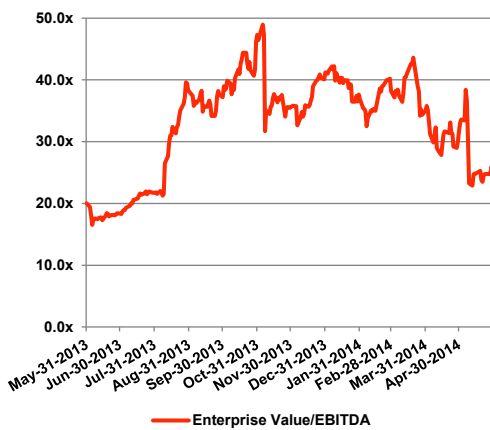
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
Broadband Wireless Index	2.4x	1.4x
Aviat Networks	0.1x	0.2x
Ceragon Networks	0.5x	0.3x
DragonWave	0.8x	0.7x
Redline Communications	1.0x	1.7x
Ubiquiti Networks	5.5x	4.9x

### EBITDA Multiple Trends



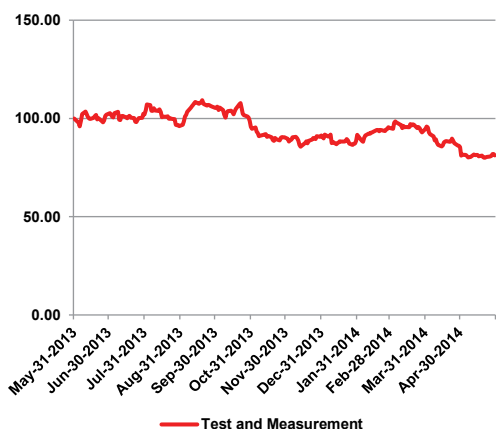
### Company EBITDA Multiples

	5/31/2014	5/31/2013
Broadband Wireless Index	25.3x	20.0x
Aviat Networks	NM	6.8x
Ceragon Networks	NM	68.3x
DragonWave	NM	NM
Redline Communications	NM	NM
Ubiquiti Networks	16.0x	16.3x

Source: Capital IQ

## Sub Sector Analysis: Test and Measurement

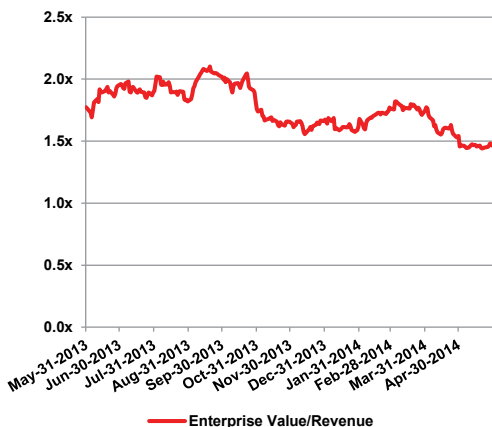
### Twelve Month Index Returns



### Company Returns

	12 Month	3 Month
Test and Measurement Index	-18.9%	-14.9%
Anite	-19.9%	5.4%
Anritsu	-25.1%	-9.3%
Ascom	49.2%	-10.5%
EXFO	-5.0%	-3.0%
Gigamon	NA	-46.1%
Ixia	-26.1%	-6.0%
JDS Uniphase	-19.5%	-20.4%
Spirent	-13.8%	-0.4%

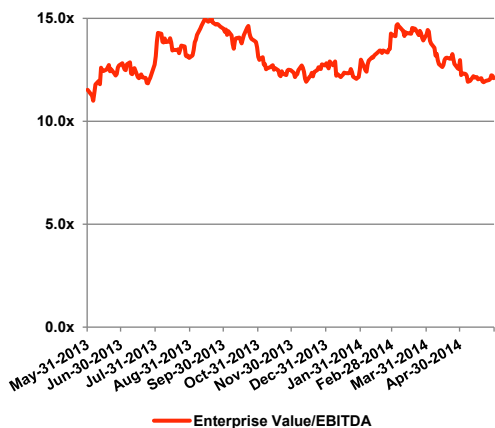
### Revenue Multiple Trends



### Company Revenue Multiples

	5/31/2014	5/31/2013
Test and Measurement Index	1.5x	1.8x
Anite	2.2x	2.5x
Anritsu	1.3x	1.8x
Ascom	1.3x	1.0x
EXFO	0.9x	0.9x
Gigamon	2.7x	NA
Ixia	1.7x	2.7x
JDS Uniphase	1.3x	1.7x
Spirent	2.0x	2.4x

### EBITDA Multiple Trends



### Company EBITDA Multiples

	5/31/2014	5/31/2013
Test and Measurement Index	12.1x	11.5x
Anite	10.5x	9.9x
Anritsu	7.5x	9.1x
Ascom	9.2x	7.5x
EXFO	23.9x	27.2x
Gigamon	NM	NA
Ixia	8.1x	11.8x
JDS Uniphase	15.2x	17.2x
Spirent	12.8x	9.5x

Source: Capital IQ

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