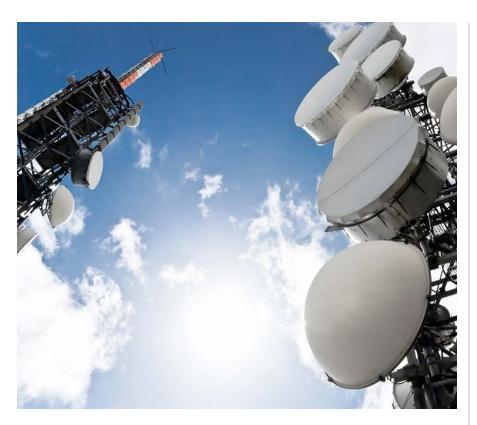


Telecom Technology and Services Group

Telecom Business Services 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

Fall 2019

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Telecom Business Services Quarterly

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

FOCUS believes that the Telecom Business Services sector is an attractive (and often overlooked) segment of the telecom market. The companies in this sector perform services such as distributing communications-related products, designing and installing communications infrastructure and providing repair and other logistics services for both communications service providers and businesses. These companies often benefit from the same exciting trends that drive growth in the larger telecommunications industry. However, as professional services businesses they tend to be much less capital-intensive than network-based telecommunications service providers. Furthermore, they typically face little threat from shifts in technology. In fact, more often than not they benefit from technology shifts as upgrade cycles drive client demand for their services and expertise. FOCUS is proud of its commitment to the Telecom Business Services sector and we are excited about the prospects for companies in this space.

The FOCUS Telecom Technology and Services group consists of two professionals with a combined 30+ years of transaction experience across a wide variety of telecommunications-related companies. 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 seasoned bankers with decades of telecom industry experience,
- 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

Distributors and Logistics Services: This sub sector includes companies that distribute communications-related products or that provide repair, refurbish and other supply chain management solutions. Companies in this segment may serve either telecom service providers, businesses or both.

Engineering and Construction: Engineering and Construction companies provide a variety of services including network planning and design, systems integration, installation and construction. Customers are primarily service providers but may also include large enterprises and governments.



Summary Comments

Public Markets

After a solid performance in our summer report, the FOCUS Telecom Business Services Index (TBSI) continued to make steady progress in the fall reporting period. The TBSI was up 4.5% in the past three months, which significantly outperformed both the 1.2% gain in the S&P 500 and the 0.1% drop in the NASDAQ over the corresponding time period. The sector also outperformed the broader indices for the full year period. The TBSI is up 10.7% in the past year, while the S&P 500 was only up 2.2% and the NASDAQ fell 0.6%. Sector multiple performance was mixed. The sector revenue multiple ticked up slightly compared to last year, increasing from 0.4x to 0.5x. However, the sector EBITDA multiple dropped from 10.0x a year ago to 9.4x currently.

Distributors and Logistics Services

With a three month gain of 8.4% it was once again the Distributors and Logistics Services sub sector that drove the growth in the TBSI for the reporting period. A major component of this was a 23.6% gain at Presidio as the market reacted positively to the news that the company would be taken private by BC Partners. Other strong performers included ADDvantage Technologies (up 26.6%), CDW (up 11.0%), ePlus (up 10.4%) and PC Connection (up 11.2%). One stock that did not fare particularly well was TESSCO, which suffered a loss of nearly 20% after a disappointing quarterly earnings report. The Distributors and Logistics Services sub sector is also up sharply for the full year with a gain of 29.4%. The top performers over this time frame include ADDvantage Technologies, CDW, Presidio and Tech Data. As might be expected, sub sector multiples are higher than they were at this same time last year. The sub sector revenue multiple increased from 0.4x to 0.5x, while the sub sector EBITDA multiple went from 10.8x to 11.9x

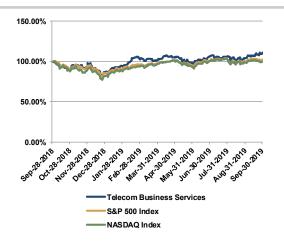
Engineering and Construction

The Engineering and Construction sub sector continued its downward trend as the sub sector fell 1.8% over the course of our three-month reporting period. It was interesting to note that the two major players in the U.S. market headed in opposite directions this period. Mastec jumped up 26.0%, while Dycom fell 13.3%. Internationally, we noted that China Communications Services also dropped sharply with a loss of 27.0%. The losses this period continued to push down year-over-year performance, and the sub sector is now down 12.9% in the past twelve months. Once again China Communications Services and Dycom were major contributors to this loss as both were down nearly 40% year-over-year. Baran Group also had a difficult year with a loss of 27.0%. On the plus side, Mastec boasted a year-over-year gain of 45.4%. Sub sector multiples are down sharply compared to last year and closed out the period at 0.4x revenue and 6.4x EBITDA. This compares to year-ago multiples of 0.6x revenue and 8.9x EBITDA.



Telecom Business Services: Public Market Summary

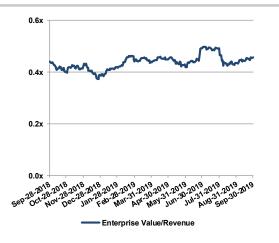
Twelve Month Index Returns



Sector and Sub Sector Returns

	12 Month	3 Month
Telecom Business Services	10.7%	4.5%
Distributors and Logistics Services	29.4%	8.4%
Engineering and Construction	-12.9%	-1.8%
S&P 500	2.2%	1.2%
NASDAQ	-0.6%	-0.1%

Revenue Multiple Trends



Sector and Sub Sector Revenue Multiples

	9/30/2019	9/30/2018
Telecom Business Services	0.5x	0.4x
Distributors and Logistics Services	0.5x	0.4x
Engineering and Construction	0.4x	0.6x

EBITDA Multiple Trends



Sector and Sub Sector EBITDA Multiples

	9/30/2019	9/30/2018
Telecom Business Services	9.4x	10.0x
Distributors and Logistics Services	11.9x	10.8x
Engineering and Construction	6.4x	8.9x

Source: Capital IQ

M&A Summary Comments

M&A

The Telecom Business Services sector picked up in terms of M&A activity in this past three months. The number of transactions increased somewhat to 36. However, the big increase was in the announced transaction dollar volume, which came in at \$2.4 billion this period. Thus far this year the level of M&A activity is down fairly significantly in terms of the number of transactions with only 99 transactions in the past nine months. This drop off is largely due to fewer transactions involving value added resellers; other areas like logistics services and engineering and construction are not seeing a drop off. On the bright side, announced transaction dollar volume ended the period at \$3.1 billion, which puts the sector on track to be fairly consistent with past years

Distributors and Logistics Services

The Distributors and Logistics Services sub sector notched 24 transactions this period. Of course, the headline transaction for the sub sector was the \$2.3 billion take private transaction of Presidio by BC Partners. In addition, companies that provide reverse logistics services were also in favor this period. Asurion continued to build out its mobile phone repair capabilities with the acquisition of the aptly named uBreakiFix. Other strategic acquirers that were active in the reverse logistics area included ComputaCenter and Magnext. Private equity also continued to be active in the third-party datacenter maintenance services space. Charlesbank Capital Partners acquired one of the largest providers of third-party maintenance services, Park Place Technologies, while New State Capital Partners established a new platform company with the purchase of Computer Data Source. Traditional communications VARs saw

a lower level of activity, but still saw several notable transactions. These included The Carlyle Group's acquisition of telecom equipment distributor Euro Techno Com and the EQT Partners acquisition of Nexon Asia Pacific.

Engineering and Construction

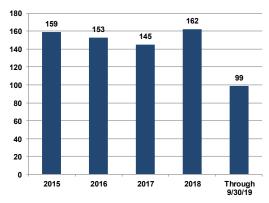
M&A activity in the Engineering and Construction sub sector maintained a brisk pace with another 12 transactions this reporting period. In the U.S. market, Congruex continued its acquisitive ways with the acquisition of fiber optic construction company HHS construction. Amdocs also made a relatively rare pickup in telecom services with the acquisition of wireless engineering company TTS Wireless. Two electrical construction companies, MDU Resources and Whitaker construction, also acquired companies that have telecom-capabilities as part of their revenue mix. Finally, we noted that ITG Communications inked an initial acquisition with the purchase of fiber engineering and construction company Broadband Technical Resources. Internationally, VINCI Energies made two acquisitions in the sub sector, one in Germany and one in Poland. Canadian company Telecon also continued its acquisitive ways with the purchase of wireline construction company TRJ.

Transactions with Multiples

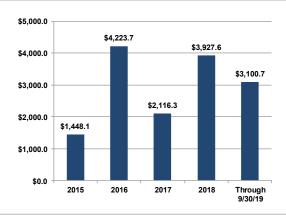
This period had two new transactions with publicly-announced multiples. The period's blockbuster deal, the acquisition of Presidio by BC Partners, weighed in at a revenue multiple of 0.8x and an EBITDA multiple of 10.5x. The period's other transaction with an announced multiple was VINCI Energies acquisition of the Polish business of Eltel. The multiple for this transaction was 0.6x revenue; the EBITDA multiple was not made public.

Telecom Business Services: M&A Summary

M&A Activity: Number of Transactions



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





M&A Announced Transactions (7/1/19 – 9/30/19)

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
A3 Communications	Converged Communications	Distributors & Logistics Services	9/30/19	NA	Provides business phone systems from Avaya as well as design and implementation of structured cabling systems.
VINCI Energies	OFM-Gruppe	Telecom Engineering and Construction	9/30/19	NA	Engineering, installation and maintenance of fiber-based, fixed-line networks for businesses in and near Germany.
Sterlite Technologies	Impact Data Solutions	Telecom Engineering and Construction	9/25/19	\$14.9	Design and deployment offerings for hyper scale datacenters.
MDU Resources Group	Pride Electric	Telecom Engineering and Construction	9/17/19	NA	Electrical construction, telecommunications installation, fiber optics and cabling installation and other services.
Hargray Communications	Infinity Network Solutions	Distributors & Logistics Services	9/9/19	NA	Provides various IT products and solutions for small to mid- sized businesses and public sector agencies in Georgia.
Ascension Capital Partners	Westcon (Southern Africa Holdings)	Distributors & Logistics Services	9/4/19	NA	Distributes technology and converged communications solutions for enterprise, SMB and consumer markets in South Africa.
ITG Communications	Broadband Technical Resources	Telecom Engineering and Construction	9/4/19	NA	Telecom construction and engineering company serving major cable and telecommunications providers in 14 states.
The Carlyle Group	Euro Techno Com	Distributors & Logistics Services	9/4/19	NA	Valued-added distributor of equipment and supplies for the telecommunications market.
IBI Group	Aspyr Engineering	Telecom Engineering and Construction	9/3/19	NA	Integration of technology, audio-visual, communications and security technologies for the public and private sectors.
Logicalis	Cilnet	Distributors & Logistics Services	9/3/19	NA	Operates as a Cisco-based systems integrator and managed services provider.
Solutions 30 Société Anonyme	I-Holding	Telecom Engineering and Construction	8/27/19	NA	Smart meters and fiber to the home network installation services.
Asurion	uBreakiFix	Distributors & Logistics Services	8/26/19	NA	Provides electronics and mobile phone repair services for businesses and consumers.
Hayleys	Fentons	Distributors & Logistics Services	8/26/19	NA	Integrated voice and data solutions including IP PBX systems. switches, routers and Wi-Fi networks.
Adept4	Cloudcoco	Distributors & Logistics Services	8/23/19	\$3.9	Voice and collaboration, network, security and hardware procurement solutions.
Samsung SDS ASIA Pacific	CMC Corporation	Distributors & Logistics Services	8/23/19	NA	Systems integration, software service, telecommunication- Internet and ICT products distribution in Vietnam.
New State Capital Partners	Computer Data Source	Distributors & Logistics Services	8/22/19	NA	Provides datacenter hardware and storage equipment maintenance and support services for businesses globally.
ARCM Communications	Linehan Communications	Distributors & Logistics Services	8/15/19	NA	Wide range of services that include VoIP solutions from Mitel Networks.
BC Partners	Presidio	Distributors & Logistics Services	8/14/19	\$2,312.6	Digital infrastructure solutions that enable clients to deploy IT infrastructure for networking, collaboration and enterprise mobility.
Magnext	NCE Computer Group (U.S. Repair Business)	Distributors & Logistics Services	8/13/19	NA	Data storage devices testing and repair services operations.
ComputaCenter	RD Trading	Distributors & Logistics Services	8/12/19	NA	IT disposal and recycling services for used computer equipment.
Amdocs	TTS Wireless	Telecom Engineering and Construction	8/7/19	NA	Mobile network engineering services specializing in network optimization, planning and software-enabled solutions.
Telecon	TRJ	Telecom Engineering and Construction	8/6/19	NA	Design, deployment, modernization and maintenance of fiberoptic and coaxial telecom networks.
VINCI Energies	Eltel (Polish Communications Business)	Telecom Engineering and Construction	8/6/19	\$14.2	Maintenance, upgrade and project work for telecom operators and other communications network owners in Poland.
Whitaker Construction	Das-Co of Idaho	Telecom Engineering and Construction	8/2/19	NA	Engages in installing underground utility, telephone and cable transmission lines.
Congruex	HHS Construction	Telecom Engineering and Construction	8/1/19	NA	Self-perform construction, engineering, placement and splicing of fiber optic cables for telecom service providers in Southern California.
EQT Partners	Nexon Asia Pacific	Distributors & Logistics Services	7/31/19	NA	Communications solutions such as PBX, contact center and video conferencing as well as LAN and WAN network solutions.
AVI-SPL	Digital Video Networks	Distributors & Logistics Services	7/23/19	NA	Designs, installs and supports audio, video, and data collaboration/presentation systems for clients in the Southwest US.
Cellular Only Connection	Wyoming Wireless (18 Locations)	Distributors & Logistics Services	7/23/19	NA	Wireless retail outlets.



M&A Announced Transactions (7/1/19 – 9/30/19) continued

Acquiror	Target	Sector	Date Announced	Purchase Price	Description
Charlesbank Capital Partners	Park Place Technologies	Distributors & Logistics Services	7/23/19	NA	Provides datacenter, server and network equipment extended warranty and support services for businesses globally.
3i Group	Evernex	Distributors & Logistics Services	7/19/19	NA	Maintains, repairs and operates fleets IT equipment and engages in the recycling, trading and leasing of electronic equipment.
IPFone	Professional Services	Distributors & Logistics Services	7/12/19	NA	VoIP, unified communications, contact center, video collaboration, enterprise mobility and telecom integration services to businesses.
FirstLight Fiber	Todd Cable Construction	Telecom Engineering and Construction	7/10/19	NA	Turn-key construction and installation services including fiber- optic installation/splicing, termination, testing and equipment installation.
Addressable Networks	Teleset	Distributors & Logistics Services	7/9/19	NA	Provides collaboration solutions such as unified communications integration, contact centers, security and storage.
Logicalis	Mars Technologies	Distributors & Logistics Services	7/8/19	NA	Hardware and software sales as well as network integration and support for businesses.
Tamburi Investment Partners	ITH	Distributors & Logistics Services	7/8/19	\$19.1	Distributes information technology hardware and software products including servers, storage and networking products.
Pennine	Rocom	Distributors & Logistics Services	7/3/19	NA	Call management products including call management systems, call recording software and call recording accessories.

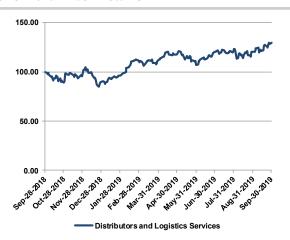
M&A Announced Transactions with Revenue Multiples (10/1/18 – 9/30/19)

Acquiror	Target	Sector	Date Announced	Purchase Price	Revenue Multiple	EBITDA Multiple	Description
BC Partners	Presidio	Distributors & Logistics Services	8/14/19	\$2,312.6	0.8 x	10.5 x	Digital infrastructure solutions that enable clients to deploy IT infrastructure for networking, collaboration and enterprise mobility.
VINCI Energies	Eltel (Polish Communications Business)	Telecom Engineering and Construction	8/6/19	\$14.2	0.6 x	NA	Maintenance, upgrade and project work for telecom operators and other communications network owners in Poland.
Insight Enterprises	PCM	Distributors & Logistics Services	6/24/19	\$618.7	0.3 x	10.9 x	Multi-vendor provider of technology products and solutions in the United States and Europe.
Yarix	Gencom	Distributors & Logistics Services	5/13/19	\$5.6	0.5 x	NA	Offers collaboration, networking, security and datacenter solutions.
Tech Mahindra	K-Vision	Telecom Engineering and Construction	3/14/19	\$1.5	0.3 x	NA	Provides network integration and engineering services for wireless telecom providers in Japan.
Kyowa Exeo Corporation	DeClout	Distributors & Logistics Services	1/7/19	\$110.4	0.5 x	8.3 x	Supplies components and services to the telecommunication/cellular industry and sells refurbished IT equipment.
Kronologi Asia Berhad	Sandz Solutions	Distributors & Logistics Services	12/27/18	\$18.0	0.8 x	NA	Information technology solutions in the areas of virtualization, disaster recovery and security and compliance.
Leveling 8	ADDvantage Technologies (Cable Division)	Distributors & Logistics Services	12/27/18	\$10.3	0.5 x	NM	Sells new, surplus and refurbished cable television equipment to cable television operators and other resellers.
Converge Technology Partners	Lighthouse Computer Services	Distributors & Logistics Services	12/4/18	\$23.2	0.3 x	4.9 x	Information technology solutions in analytics, cloud, infrastructure, middleware and security.
AGC Networks	Black Box	Distributors & Logistics Services	11/11/18	\$154.3	0.2 x	NM	Provides digital solutions that assist customers with designing, building, managing and securing their IT infrastructure.
CVC Capital Partners	ConvergeOne	Distributors & Logistics Services	11/6/18	\$1,661.8	1.2 x	14.9 x	Provides collaboration and technology solutions for large and medium enterprises in the United States.
Over the Wire Holdings	Comlinx	Distributors & Logistics Services	11/1/18	\$16.0	1.0 x	5.0 x	Systems and telecom integration, support and distribution services for businesses and the public sector in Australia.
Computacenter	FusionStorm	Distributors & Logistics Services	10/2/18	\$70.0	0.1 x	NA	Cisco partner delivering technology solutions to enterprises of all sizes globally.



Sub Sector Analysis: Distributors and Logistics Services

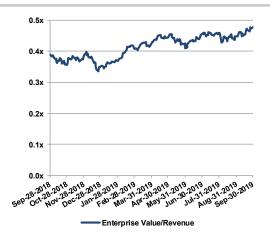
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Distributors and Logistics Index	29.4%	8.4%
ADDvantage Technologies	41.8%	26.6%
CDW	38.6%	11.0%
ePlus	-17.9%	10.4%
Insight	3.0%	-4.3%
PC Connection	0.0%	11.2%
Presidio	10.8%	23.6%
Tech Data	45.6%	-0.3%
TESSC0	-5.8%	-19.5%

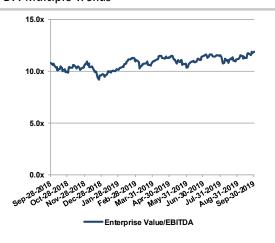
Revenue Multiple Trends



Company Revenue Multiples

	9/30/2019	9/30/2018
Distributors and Logistics Index	0.5x	0.4x
ADDvantage Technologies	0.3x	0.5x
CDW	1.3x	1.1x
ePlus	0.9x	1.0x
Insight	0.3x	0.3x
PC Connection	0.4x	0.3x
Presidio	0.8x	0.8x
Tech Data	0.1x	0.1x
TESSC0	0.3x	0.2x

EBITDA Multiple Trends



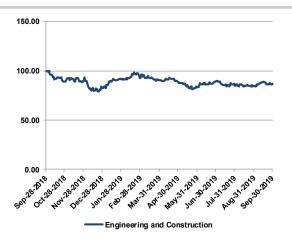
Company EBITDA Multiples

	9/30/2019	9/30/2018
Distributors and Logistics Index	11.9x	10.8x
ADDvantage Technologies	NM	NM
CDW	16.5x	14.2x
ePlus	11.8x	13.6x
Insight	8.0x	8.2x
PC Connection	8.7x	9.7x
Presidio	10.5x	NA
Tech Data	6.1x	5.5x
TESSC0	20.4x	11.7x

Source: Capital IQ

Sub Sector Analysis: Engineering and Construction

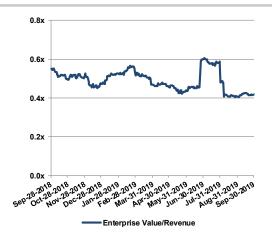
Twelve Month Index Returns



Company Returns

	12 Month	3 Month
Engineering and Construction Index	-12.9%	-1.8%
Baran Group	-27.0%	-0.5%
China Communications Services	-38.5%	-27.0%
COMSYS Holdings	-4.5%	11.7%
Dycom	-39.7%	-13.3%
Mastec	45.4%	26.0%
MIRAIT Holdings	-12.7%	1.8%
TSS	4.8%	16.0%

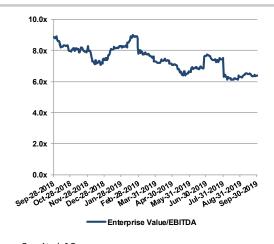
Revenue Multiple Trends



Company Revenue Multiples

	9/30/2019	9/30/2018
Engineering and Construction Index	0.4x	0.6x
Baran Group	0.3x	0.3x
China Communications Services	0.1x	0.3x
COMSYS Holdings	0.7x	0.8x
Dycom	0.8x	1.1x
Mastec	0.9x	0.8x
MIRAIT Holdings	0.3x	0.4x
TSS	0.6x	0.6x

EBITDA Multiple Trends



Company EBITDA Multiples

	9/30/2019	9/30/2018
Engineering and Construction Index	6.4x	8.9x
Baran Group	7.2x	11.2x
China Communications Services	2.3x	7.7x
COMSYS Holdings	7.9x	8.9x
Dycom	8.6x	11.0x
Mastec	8.3x	9.3x
MIRAIT Holdings	5.2x	6.4x
TSS	8.6x	6.7x

Source: Capital IQ



FOCUS Telecom Technology and Services Team



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 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.

About FOCUS Investment Banking LLC

With more than three decades of experience, FOCUS Investment Banking is a trusted name in M&A advisory services worldwide. FOCUS works to understand each client's strategic and financial objectives, craft the best plan to achieve these goals, and deliver success. Whether helping to sell, buy, or raise capital, FOCUS strives to maximize the value of every transaction to the benefit of its clients. FOCUS bankers are seasoned operating and financial executives with extensive transaction experience. Securities transactions conducted by FOCUS Securities LLC, an affiliated company, registered Broker Dealer member FINRA/SIPC. For more information on FOCUS, please visit www.focusbankers.com.

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