



D|A|DAVIDSON
INVESTMENT BANKING

Cloud Infrastructure & Communications Technology Overview

Q4 2023

TECHNOLOGY GROUP



D|A|DAVIDSON
INVESTMENT BANKING

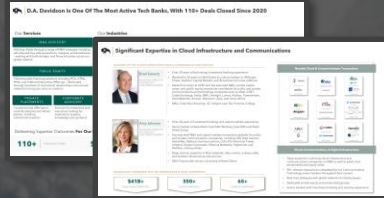
Cloud Infrastructure & Communications Technology: In This Issue

Q4 2023

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D.A. Davidson Technology Group Overview

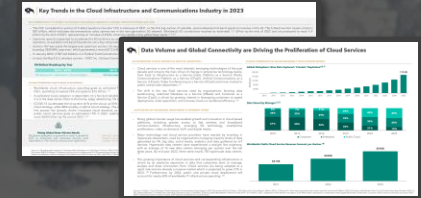
Overview of D.A. Davidson's Technology Investment Banking Group and our experience in Cloud Infrastructure and Communications Technologies



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Trends In Cloud Infrastructure and Communications

Comprehensive review of the major themes and trends in the Cloud Infrastructure and Communications industry and our outlook on the space



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Cloud Infrastructure and Communications Valuation Environment

Market map segmenting the public communications technology market and analysis of company valuation multiples and performance over the last several years



04

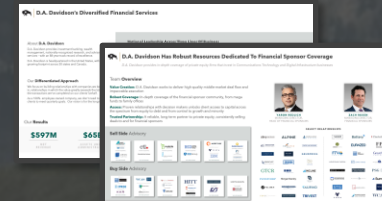
Recent Cloud Infrastructure and Communications Transaction Activity

A review of recent notable Cloud Infrastructure and Communications M&A and capital raise transaction activity

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About D.A. Davidson

Overview of D.A. Davidson's diversified full-service platform and capabilities spanning investment banking, wealth management, nationally-recognized research, and advisory services - and our differentiated approach to helping our clients achieve their strategic and financial goals



\$662M

NET REVENUE

100%

EMPLOYEE OWNERSHIP

1,600+

EMPLOYEES

100+

OFFICE LOCATIONS

SECTION 01

D.A. Davidson Technology Group Overview





D.A. Davidson Is One Of The Most Active Tech Banks, With 110+ Deals Closed Since 2020

Our Services

M&A ADVISORY

Advising clients through a range of M&A strategies including sell-side and buy-side acquisitions, mergers, and divestitures - working with both strategic and financial parties across our global network

PUBLIC EQUITY

Tailored public financing solutions including IPOs, ATMs, PIPEs, and Preferred Securities Offerings - distributed through hundreds of institutional relationships and a broad network to bring your story to investors

PRIVATE PLACEMENTS

Curated private offerings to carefully selected and vetted parties, including institutional investors

CORPORATE ADVISORY

Services for companies and executives looking for experience, product knowledge, and guidance

Our Industries

TECHNOLOGY

- comc: has received a growth investment from ebay (SELL-SIDE ADVISOR)
- Amkor technology: has completed a secondary offering of common stock (\$240,000,000)
- vizlib: has been acquired by insightsoftware (SELL-SIDE ADVISOR)
- APPTIO: a portfolio company of VISTA (SELL-SIDE ADVISOR)
- LiquidPlanner: a portfolio company of TVC (has been acquired by Tempo) (SELL-SIDE ADVISOR)
- WALL STREET HORIZON: has been acquired by TMX (SELL-SIDE ADVISOR)
- Miradore: has been acquired by GoTo (SELL-SIDE ADVISOR)
- TouchPoint: has been acquired by PURSUANT (SELL-SIDE ADVISOR)
- GoldenSource: a portfolio company of IVUS (has been acquired by GENSPRING) (SELL-SIDE ADVISOR)
- ProductPlan: has been acquired by BOWLER (FINANCIAL ADVISOR)

CONSUMER

- ACTIVEPIPE: has been acquired by MoxiWorks (SELL-SIDE ADVISOR)
- TIER1CRM: a portfolio company of WAVYCREST (has been acquired by SS&C) (SELL-SIDE ADVISOR)
- IronRod HEALTH: has received growth capital from HCAP PARTNERS (FINANCIAL ADVISOR)
- SalesRabbit: has been acquired by DIVERSIS CAPITAL (SELL-SIDE ADVISOR)
- THOUGHTFQCUS: has received an investment from (FINANCIAL ADVISOR)
- CONNEXPAY: has received an investment from MARQETA (FINANCIAL ADVISOR)
- intuition: a portfolio company of CENTENIAL INVESTMENTS (has been acquired by majesco) (FINANCIAL ADVISOR)
- Oiqx: has been acquired by (SELL-SIDE ADVISOR)
- earnup: has received Series C investments from (FINANCIAL ADVISOR)
- AdvantageData: has been acquired by (SELL-SIDE ADVISOR)

DIVERSIFIED INDUSTRIALS

- airbnb: has completed an initial public offering of common stock (\$3,830,000,108) (CO-MANAGER)
- CONNEXPAY: has completed a significant growth equity investment from FTV PANORAMIC F-PRIME (FINANCIAL ADVISOR)
- Informative Research: has been acquired by stewart (SELL-SIDE ADVISOR)
- wisp: has agreed to be acquired by WELL Health (FINANCIAL ADVISOR)
- clearwater: has received an investment from (CO-MANAGER) (\$621,000,000)
- LEVELSET: has agreed to be acquired by PROCORE (SELL-SIDE ADVISOR)
- PWCC: has obtained an asset backed financing from (FINANCIAL ADVISOR) (\$175,000,000)
- REMARKABLE HEALTH: has been acquired by Netmart (SELL-SIDE ADVISOR)
- QuickFee: has established a multi-currency asset backed financing with Northleaf Capital Partners (FINANCIAL ADVISOR)
- Discovery Data: a company backed by (SELL-SIDE ADVISOR)

FINANCIAL INSTITUTIONS

- coursera: has completed an initial public offering of common stock (\$596,937,000) (CO-MANAGER)
- LONG RIDGE: a portfolio company of (has been acquired by tradovate) (BUY-SIDE ADVISOR)
- swarm64: has been acquired by servicenow (SELL-SIDE ADVISOR)
- NIMBIX: has been acquired by ATOS (SELL-SIDE ADVISOR)
- CAPITOL INVESTMENT V: has acquired doma (FINANCIAL ADVISOR)
- FUNDAMENTAL: has acquired OppFI (FINANCIAL ADVISOR)
- ARIA: has been acquired by (SELL-SIDE ADVISOR)
- SmartRent: has been acquired by FIFTH WALL (FINANCIAL ADVISOR)
- ctl: has been acquired by Columbia River Partners (SELL-SIDE ADVISOR)
- SYMPHONY: a company backed by (FINANCIAL ADVISOR)

Delivering Superior Outcomes For Our Clients

110+ TRANSACTIONS

\$21B+ DEAL VALUE

50+ M&A TRANSACTIONS

60+ DEBT & EQUITY FINANCINGS

Note: Figures represent Technology group performance since 2020 (as of June 30, 2023)



Our Industry Knowledge Spans The Entire Technology Ecosystem With A Deep Sector Focus

D.A. Davidson's industry knowledge spans the entire technology ecosystem with transactional experience across a wide range of segments

Sector Specialists First: Proficient Across Four Technology Verticals, With Differentiated Expertise In Cloud Infrastructure & Communications

Cloud Infrastructure & Communications

- Data Center
- Managed Services
- Fiber Networks
- Telecom
- Wireless
- IoT / IloT
- Communications Software, Hardware & Infrastructure
- CCaaS / CPaaS
- IaaS / UCaaS

 has been acquired by IMPINJ SELL-SIDE ADVISOR	 has completed a secondary offering of common stock \$240,000,000	 has been acquired by LEE TWIN POINT CAPITAL SELL-SIDE ADVISOR	 has been acquired by Halo SELL-SIDE ADVISOR	 has been acquired by Columbia River Partners SELL-SIDE ADVISOR	 has acquired Airspan FINANCIAL ADVISOR	 has acquired Cloud9 FINANCIAL ADVISOR	 has been acquired by CHAMPION ONE SELL-SIDE ADVISOR
 a software portfolio company of servicenow SELL-SIDE ADVISOR	 has been acquired by PDF/SOLUTIONS SELL-SIDE ADVISOR	 has completed an initial public offering of common stock \$207,000,000 CO-MANAGER	 has been acquired by management through a leveraged recapitalization FINANCIAL ADVISOR	 has completed a follow-on offering of common stock \$597,597,500 CO-MANAGER	 has raised unsecured debt from ATLANA PLACEMENT AGENT	 has been acquired by SpireCapital SELL-SIDE ADVISOR	 has completed a follow-on offering of common stock \$286,350,000 CO-MANAGER
 has been acquired by TelePacific SELL-SIDE ADVISOR	 has been acquired by PERISCOPE SELL-SIDE ADVISOR	 has been acquired by Hawaiian Telecom SELL-SIDE ADVISOR	 has completed a follow-on offering of primary common stock \$81,650,000 CO-MANAGER	 has been acquired by ADIRAN SELL-SIDE ADVISOR	 has been acquired by COMMSCOPE SELL-SIDE ADVISOR	 has completed a follow-on offering of secondary common stock \$57,778,780 CO-MANAGER	 has completed a follow-on offering of primary common stock \$33,000,000 CO-MANAGER

Application & Vertical Software

 has been acquired by flightsoftware SELL-SIDE ADVISOR	 has been acquired by Tempo SELL-SIDE ADVISOR	 has been acquired by KYRUS FINANCIAL ADVISOR	 has been acquired by GoTo SELL-SIDE ADVISOR	 has been acquired by PURSUANT SELL-SIDE ADVISOR	 has been acquired by B W BRYER CAPITAL FINANCIAL ADVISOR	 has received by MoxiWorks SELL-SIDE ADVISOR	 has completed an initial public offering of common stock \$3,864,000,000 CO-MANAGER	 has been acquired by DIVERSIS CAPITAL SELL-SIDE ADVISOR	 has received by NetApp SELL-SIDE ADVISOR	 has received a growth equity and debt investment from CIBC FINANCIAL ADVISOR	 has completed an initial public offering of common stock \$1,838,566,000 CO-MANAGER	 has received a significant growth equity investment from Arrowroot Capital FINANCIAL ADVISOR	 has agreed to be acquired by PROCORE SELL-SIDE ADVISOR
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Internet & Tech-Enabled Services

 has been acquired by BlueYonder SELL-SIDE ADVISOR	 has received an investment from Wells Fargo Capital Partners FINANCIAL ADVISOR	 has been acquired by IQVIA SELL-SIDE ADVISOR	 has been acquired by BV SELL-SIDE ADVISOR	 has been acquired by accenture SELL-SIDE ADVISOR	 has received an investment from SUNSTONE FINANCIAL ADVISOR	 has completed a public offering of common stock \$565,000,000 CO-MANAGER	 has received an investment from Capital Group FINANCIAL ADVISOR
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Financial Technology

 has received a significant investment from ELDC FINANCIAL ADVISOR	 has been acquired by TMX SELL-SIDE ADVISOR	 has received a significant investment from FTV FINANCIAL ADVISOR	 has been acquired by majesco SELL-SIDE ADVISOR	 has received an investment from FRANKLIN TEMPLETON SELL-SIDE ADVISOR	 has received an investment from SSAC SELL-SIDE ADVISOR	 has received an investment from Bluebird Capital FINANCIAL ADVISOR
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Bringing Scale To Your Deal

110+ | Technology Transactions

\$21B+ | Deal Value

27+ | Deal Countries



Significant Expertise In Cloud Infrastructure and Communications

LEADERS OF THE CLOUD INFRASTRUCTURE & COMMUNICATIONS SECTOR



Brad Gevurtz

MANAGING DIRECTOR,
TECHNOLOGY
INVESTMENT BANKING

- Over 30 years of technology investment banking experience
- Worked for 20 years on Wall Street as a senior banker at JPMorgan Chase, KeyBanc Capital Markets, and Broadview Int'l (now Jefferies)
- Started his career at AT&T and has executed M&A, private capital raises, and public equity transactions worldwide for public and private communications and technology companies such as Alltel, AT&T, Cable Exchange, Fastly, IBM, Limelight, Lumos, Radisys, Towerstream, Vast Networks, Verizon, Wavecom, Zayo, and many others
- MBA, Columbia University; JD, Oregon Law; BA, Pomona College



Amy Johnson

MANAGING DIRECTOR,
TECHNOLOGY
INVESTMENT BANKING

- Over 30 years of investment banking and capital markets experience
- Senior banker at Swiss Bank Corp/SBC Warburg (now UBS) and Bank Street Group
- Has executed M&A and capital markets transactions globally for public and private communications companies, including 365 Data Centers, AboveNet, Alpheus Communications, Colo ATL/American Tower, Airband, Digital Crossroads, Hibernia Networks, Highwinds, and OnFiber, among others
- Deep domain expertise in fiber networks, data centers, subsea cable, and wireless infrastructure and services
- BBA Finance with honors, University of Notre Dame

SIGNIFICANT COMBINED SECTOR KNOWLEDGE & DEAL EXPERIENCE

\$41B+
DEAL VALUE COMPLETED

350+
DEALS COMPLETED

65+
YEARS OF EXPERIENCE

Notable Cloud & Communications Transactions

Voyantic
has been acquired by
IMPINJ
SELL-SIDE ADVISOR

Amkor Technology
has completed a secondary offering of common stock
\$240,000,000

ALLIANCE CORPORATION
has been acquired by
LEE TWIN POINT EQUITY
SELL-SIDE ADVISOR

NBA
has acquired
Airspan
FINANCIAL ADVISOR

ctl.
has been acquired by
Columbia River Partners
SELL-SIDE ADVISOR

SYMPHONY
has acquired
Cloud9
FINANCIAL ADVISOR

ARIA
has been acquired by
Halo
SELL-SIDE ADVISOR

cimetrix
has been acquired by
PDF/SOLUTIONS
SELL-SIDE ADVISOR

Approved
has been acquired by
CHAMPION ONE
SELL-SIDE ADVISOR

Cloud, Communications, & Digital Infrastructure

- Deep expertise in advising cloud infrastructure and communications companies on M&A as well as public and private debt and equity raises
- 60+ relevant transactions completed by our Communications Technology senior bankers throughout their careers
- Real-time dialogues with global network of industry buyers
- Dedicated private equity and private debt groups
- Senior bankers with investment banking and industry experience



D.A. Davidson Is Well Connected Across All Major CommTech Conferences

CONFERENCE OVERVIEW



Metro Connect is the premier U.S. digital infrastructure conference that brings in leaders across the fiber, data center, cloud, tower, and cable industries allowing leaders in the space to share notable announcements, updates on M&A deals, and forecasts for the year ahead, in addition to solution-focused discussions on market disruptions and opportunities.



ConnectX is one of the premier 5G infrastructure conference that brings together the entire ecosystem to discuss the latest trends, within: network planning and deployment, spectrum and licensing, security and privacy, small cells and distributed antenna systems (DAS), and 5G neutral host networks.



Mobile World Congress Las Vegas is a premier 5G infrastructure focused events that brings together leaders in the industry to discuss the most cutting edge developments in network planning and deployment, spectrum and licensing, security and privacy, small cells and distributed antenna systems (DAS), and 5G neutral host networks.



The TMT M&A Forum 2023 gathered 450 leaders, including TMT mergers and acquisition executives, financiers and professional advisers, to assess the next wave of transactions that will shape TMT sectors globally and assess trends that will shape TMT sectors globally.

KEY CONFERENCE TAKEAWAYS

- **For Network Operators - Fiber Build-Outs Represent a Modern-Day "Gold Rush":** As legacy net cable adds wane, Tier-1 broadband providers have become vocal promoters of investment in fiber-to-the-premise ("FTTP") to drive the next generation of growth as FTTP investment increases subscriber and revenue growth, increases customer satisfaction, lowers customer churn rates, and reduces network maintenance costs.
- **An Influx of Public and Private Capital Is Driving Ambitious Build Plans:** Massive government funding plans enacted in the U.S. and Canada support the buildout of broadband networks in rural areas where deployments are more expensive on a per-subscriber basis: US\$100+ billion from U.S. governments with C\$12 billion from Canadian governments.
- **Small Cells are Powering the Wireless Revolution:** As the demand for low-latency, high-speed, and reliable coverage continues to grow, small cells have emerged as a critical solution. These compact, low powered cell stations help extend coverage and capacity to areas where macrocell infrastructure may be less effective and are playing a vital role in enabling seamless connectivity and the broader 5G rollout.
- **The Critical Role of the Data Center:** Emphasis was placed upon the critical role of data centers in supporting the growing wireless ecosystem. Data centers provide the infrastructure needed for processing, storing, and distributing the expansive data generated by the wireless networks. As data consumption continues to rise exponentially (increasingly fueled by AI), the demand for robust, efficient, and secure data centers will rise as well.
- **FWA as a Proven Major 5G Use Case:** Notably, 5G Fixed Wireless (FWA) has seen increased traction across both carriers and investors, given FWA's high-speed capabilities, compelling economics, and accelerating number of connections, which present a significant market opportunity for growth.
- **Wireless Security As a Priority:** Given the rapidly growing available use cases for 5G and other wireless infrastructure, security product solutions remained top of mind. Wireless network security is critical because it helps protect data from unauthorized access.
- **Massive Data Center Spend Will Continue to Drive Outsized Need for Institutional Capital:** With an estimated \$400BN global spend on data centers over the next five years driven largely by AI, the significant need for institutional capital is expected to continue for the next several years. In order to fund this spend, the industry will need to look beyond the traditional bank market to new sources of senior and junior debt capital such as private credit funds and insurance companies. Meanwhile, equity funding will continue to come from the growing universe of infrastructure funds, sovereign wealth funds, family offices and private equity funds that are targeting investments in the sector.
- **Fiber-to-the-Premise (FTTX) Broadens Access to Capital Markets Through Securitizations:** Following previous securitizations by Allot and Ting, Frontier's recent investment grade rated securitization of fiber assets and related residential and business customer contracts in the Dallas metro area provides another avenue of debt financing for the FTTX sector in addition to private markets and approximately \$42.5BN of government-sponsored BEAD funding. Market participants view FTTX as being in early innings earmarked by growth, with consolidation and M&A further down the road.
- **Increasing Number of Joint Ventures and Growth Equity Deals in Data Center and Fiber Assets in 2023:** This trend is expected to continue into 2024 to fund build outs and meet market demand. Investor participation is expected to broaden beyond traditional broadband infrastructure funds to include pension funds and sovereign wealth funds. With existing digital infrastructure investors tending to hold high quality assets for longer periods, there will be more interest in continuation funds and minority equity investments from passive investors.



Leading Middle Market Technology Investment Bank

 has received a growth investment from SELL-SIDE ADVISOR	 has been acquired by a portfolio company of SELL-SIDE ADVISOR	 has received a debt investment from FINANCIAL ADVISOR	 has completed a secondary offering of common stock \$240,000,000 SELL-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 has completed a follow-on offering of secondary common stock \$18,400,000 CO-MANAGER	 a portfolio company of has been acquired by a portfolio company of SELL-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 a company backed by has been acquired by SELL-SIDE ADVISOR	 has received an investment from FINANCIAL ADVISOR
 has received growth capital from FINANCIAL ADVISOR	 has received a significant growth equity investment from FINANCIAL ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 has obtained an asset-backed financing from \$175,000,000 FINANCIAL ADVISOR	 a portfolio company of has been acquired by SELL-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 a subsidiary of has been acquired by SELL-SIDE ADVISOR	 a portfolio company of has been acquired by SELL-SIDE ADVISOR	 has received a significant investment from the private equity arm of Lloyds Banking Group FINANCIAL ADVISOR	 has been acquired by SELL-SIDE ADVISOR
 has received Series C investments from FINANCIAL ADVISOR	 has been acquired by FINANCIAL ADVISOR	 has been acquired by a portfolio company of SELL-SIDE ADVISOR	 has received a significant growth equity investment from FINANCIAL ADVISOR	 has been acquired by FINANCIAL ADVISOR	 a portfolio company of has acquired BUY-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 has received an investment from FINANCIAL ADVISOR	 has been acquired by FINANCIAL ADVISOR	 has been acquired by SELL-SIDE ADVISOR
 has been acquired by a portfolio company of SELL-SIDE ADVISOR	 has established a multi-currency asset-backed financing with FINANCIAL ADVISOR	 a portfolio company of has agreed to be acquired by SELL-SIDE ADVISOR	 has completed an initial public offering of common stock \$146,117,600 CO-MANAGER	 has been acquired by SELL-SIDE ADVISOR	 has agreed to be acquired by FINANCIAL ADVISOR	 has completed an initial public offering of common stock \$621,000,000 CO-MANAGER	 has agreed to be acquired by SELL-SIDE ADVISOR	 has completed an initial public offering of common stock \$127,875,000 CO-MANAGER	 a portfolio company of has been acquired by a portfolio company of FINANCIAL ADVISOR
 has been acquired by FINANCIAL ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 a company backed by has acquired FINANCIAL ADVISOR	 has acquired FINANCIAL ADVISOR	 has been acquired by a portfolio company of SELL-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 has acquired FINANCIAL ADVISOR	 has been acquired by SELL-SIDE ADVISOR	 a portfolio company of has been acquired by SELL-SIDE ADVISOR

Includes transactions completed by current D.A. Davidson professionals prior to joining the firm



Leading Middle Market Technology Investment Bank, Cont'd

 CONFLUENT has completed an initial public offering of common stock \$828,000,000 CO-MANAGER	 alight has been acquired by FOLKY TRASIMENE ACQUISITION CORP. FINANCIAL ADVISOR	 READY Education has received an investment from LEVEL EQUITY in conjunction with its acquisitions of ATUCOMM and myday FINANCIAL ADVISOR	 CHRONUS has been acquired by LEVEL EQUITY SELL-SIDE ADVISOR	 CHURCHILL CAPITAL II has acquired skillsoft FINANCIAL ADVISOR	 TS Innovations Acquisition Corp. has acquired LATCH FINANCIAL ADVISOR	 SYMPHONY has acquired Cloud9 a portfolio company of BARCLAYS , JPMorgan , UBS , and CHE Group FINANCIAL ADVISOR	 ARCHER a portfolio company of NEWSPRING has received a minority equity investment from LLR FINANCIAL ADVISOR	 MARLIN EQUITY PARTNERS has made significant equity investments into exegy and VELA FINANCIAL ADVISOR	 OptionMetrics has received a significant equity investment from LEEDS Equity Partners FINANCIAL ADVISOR
 NOVANTAS has agreed to combine with FBX Informa Financial Intelligence and inflexion FINANCIAL ADVISOR	 UiPath has completed an initial public offering of common stock \$1,538,566,008 CO-MANAGER	 Phreesia has completed a follow-on offering of common stock \$258,750,000 CO-MANAGER	 Telos has completed a follow-on offering of common stock \$300,000,000 CO-MANAGER	 OpenLending has completed a follow-on offering of common stock \$351,900,000 CO-MANAGER	 coursera has completed an initial public offering of common stock \$596,937,000 CO-MANAGER	 SafeSend has received an investment from LEADEDGE CAPITAL FINANCIAL ADVISOR	 paya has completed a follow-on offering of common stock \$245,000,000 CO-MANAGER	 nLIGHT has completed a follow-on offering of common stock \$86,250,000 CO-MANAGER	 Cohu has completed a follow-on offering of common stock \$233,392,500 CO-MANAGER
 Dropbox has completed a public offering of senior convertible notes \$1,306,000,000 CO-MANAGER	 VARONIS has completed a follow-on offering of common stock \$517,500,000 CO-MANAGER	 Duck Creek Technologies has completed a follow-on offering of common stock \$476,100,000 CO-MANAGER	 REPAY Realtime Electronic Payments has completed a follow-on offering of common stock \$148,868,000 CO-MANAGER	 ClaimVantage has agreed to be acquired by MAJESCO a portfolio company of THOMASBRAVO FINANCIAL ADVISOR	 TABS Analytics has been acquired by BLACKSMITH APPLICATIONS a portfolio company of STRATTAM CAPITAL FINANCIAL ADVISOR	 ichor has completed a follow-on offering of common stock \$146,050,000 CO-MANAGER	 airbnb has completed an initial public offering of common stock \$3,830,000,108 CO-MANAGER	 OpenLending has completed a follow-on offering of secondary common stock \$306,900,000 CO-MANAGER	 United Real Estate a portfolio company of St. Charles Capital has received an investment from abry PARTNERS FINANCIAL ADVISOR
 cimetrix has been acquired by PDF/SOLUTIONS SELL-SIDE ADVISOR	 Grapevine6 has been acquired by SEISMIC a portfolio company of PERMIRA FINANCIAL ADVISOR	 Telos has completed an initial public offering of common stock \$292,641,179 CO-MANAGER	 Duck Creek Technologies has completed a follow-on offering of common stock \$377,200,000 CO-MANAGER	 MobiChord a venture portfolio company of servicenow has received an investment from PERISCOPE EQUITY SELL-SIDE ADVISOR	 NINJACAT has received a growth equity and debt investment from CLAYTON DUBISSIERE BANK and CIBC FINANCIAL ADVISOR	 snowflake has completed an initial public offering of common stock \$3,864,000,000 CO-MANAGER	 HTD has agreed to sell the MuniBrokers business to Market Axess FINANCIAL ADVISOR	 VERTICALS has completed a follow-on offering of common stock \$87,831,250 CO-MANAGER	 ENVESTNET has completed a public offering of senior convertible notes \$517,500,000 CO-MANAGER
 Duck Creek Technologies has completed an initial offering of common stock \$465,750,000 CO-MANAGER	 cforia Cash Flow Optimized has been acquired by GEMSPRING CAPITAL SELL-SIDE ADVISOR	 YANTRIKS has been acquired by BlueYonder SELL-SIDE ADVISOR	 REPAY Realtime Electronic Payments has completed a follow-on offering of common stock \$184,000,000 CO-MANAGER	 fastly has completed a follow-on offering of common stock \$286,350,000 CO-MANAGER	 Zillow has completed a follow-on offering of common stock \$422,400,000 CO-MANAGER	 Zillow has completed a public offering of senior convertible notes \$565,000,000 CO-MANAGER	 panzura has been acquired by Profile Capital Management SELL-SIDE ADVISOR	 VARONIS has completed a public offering of senior convertible notes \$253,000,000 CO-MANAGER	 STRANDS has agreed to be acquired by CRIF FINANCIAL ADVISOR

Includes transactions completed by current D.A. Davidson professionals prior to joining the firm



Deep Experience In Cloud Infrastructure and Communications Technologies

Voyantic
has been acquired by
IMPINJ
SELL-SIDE ADVISOR

Amkor Technology
has completed a secondary offering of common stock
\$240,000,000
CO-MANAGER

ALLIANCE CORPORATION
THE POWER OF BEING CONNECTED.
a portfolio company of
Ironbridge
has been acquired by
LEE TWIN POINT EQUITY CAPITAL
SELL-SIDE ADVISOR

ARIA
has been acquired by
Halo
SELL-SIDE ADVISOR

ctl.
has been acquired by
Columbia River Partners
SELL-SIDE ADVISOR

NBA
has acquired
Airspan
FINANCIAL ADVISOR

SYMPHONY
has acquired
Cloud9
a portfolio company of
BARCLAYS JPMorgan UBS CHE Group
FINANCIAL ADVISOR

fastly.
has completed a follow-on offering of common stock
\$286,350,000
CO-MANAGER

MobiChord
a venture portfolio company of
servicenow.
has received an investment from
PERISCOPE EQUITY
SELL-SIDE ADVISOR

cimetrix
has been acquired by
PDF/SOLUTIONS
SELL-SIDE ADVISOR

fastly.
has completed an initial public offering of common stock
\$207,000,000
CO-MANAGER

AXIOM
has been acquired by management through a leveraged recapitalization
FINANCIAL ADVISOR

zayo GROUP
has completed a follow-on offering of common stock
\$597,597,500
CO-MANAGER

Approved NETWORKS
has been acquired by
C1 CHAMPION ONE
SELL-SIDE ADVISOR

TELEKENEX
has been acquired by
SpireCapital
SELL-SIDE ADVISOR

towerstream
has completed a follow-on offering of primary common stock
\$33,000,000
CO-MANAGER

OCI X
Orange County Internet Exchange
has been acquired by
TelePacific COMMUNICATIONS
SELL-SIDE ADVISOR

mobile SOLUTIONS
has been acquired by
PERISCOPE EQUITY
SELL-SIDE ADVISOR

WAVECOM
has been acquired by
Hawaiian Telcom
SELL-SIDE ADVISOR

Limelight NETWORKS
has completed a follow-on offering of primary common stock
\$81,650,000
CO-MANAGER

vast NETWORKS
has raised unitranche debt from
ATALAYA
PLACEMENT AGENT

Cable Exchange
has been acquired by
COMMSCOPE
SELL-SIDE ADVISOR

LUMOS NETWORKS
has completed a follow-on offering of secondary common stock
\$57,778,780
CO-MANAGER

Fiber Network SOLUTIONS
has been acquired by
cogent COMMUNICATIONS
SELL-SIDE ADVISOR

TOYOTA TSUSHO CORPORATION
has sold its interest in its affiliate
Pacific LightNet, Inc.
to
SK Telecom Holdings
SELL-SIDE ADVISOR

verizon
has completed a Public offering of Senior Notes
\$2,000,000,000
CO-MANAGER

ALLEN TELECOM
has completed an offering of convertible preferred stock
\$460,000,000
CO-MANAGER

SMART/RG
has been acquired by
ADTRAN
SELL-SIDE ADVISOR



Deep Experience In Cloud Infrastructure and Communications Technologies, Cont'd

METRO MIT

has been acquired by

INDIANA FIBER OPTICS

SELL-SIDE ADVISOR

Colo Ad
A IT Communications Company

has been acquired by

AMERICAN TOWER

SELL-SIDE ADVISOR

SummitIG

has completed a unitranche credit facility in support of majority sale to

SDC CAPITAL PARTNERS

FINANCIAL ADVISOR

ALPHEUS COMMUNICATIONS

a portfolio company of

TGG The Goss Group

has raised a senior secured credit facility in support of a dividend recapitalization

\$135,000,000

JOINT LEAD ARRANGER

AboveNet

has raised a senior secured credit facility

\$90,000,000

FINANCIAL ADVISOR & PLACEMENT AGENT

ME

CREDIT PARTNERS has provided senior secured financing for

Rise Broadband

\$205,000,000

FINANCIAL ADVISOR

radisys

has completed a follow-on offering of primary common stock

\$22,287,000

CO-MANAGER

365 DataCenters
Technology Humanized™

has acquired

Host.net

FINANCIAL ADVISOR & DEBT PLACEMENT AGENT

365 DataCenters
Technology Humanized™

has raised a senior secured credit facility

FINANCIAL ADVISOR & PLACEMENT AGENT

HIBERNIA NETWORKS

has been acquired by

gtt

SELL-SIDE ADVISOR

HIBERNIA NETWORKS

has raised a senior secured credit facility

\$165,000,000

FINANCIAL ADVISOR & SOLE ARRANGER

AboveNet

has raised a senior secured credit facility

\$250,000,000

FINANCIAL ADVISOR

HIGHWINDS

has raised a senior secured credit facility

\$35,000,000

FINANCIAL ADVISOR & PLACEMENT AGENT

GEOLINKS

has obtained a letter of credit commitment in support of CAF funding

FINANCIAL ADVISOR

CHC CONSULTING

has been acquired by

CONGRUEX
a portfolio company of Crestview

SELL-SIDE ADVISOR

CROSS RIVER FIBER

has obtained senior secured financing in connection with its sale to

Ridgemont EQUITY PARTNERS

FINANCIAL ADVISOR

DRFORTRESS

has obtained a senior secured financing

FINANCIAL ADVISOR

OnFiber

has obtained a senior secured credit facility

\$25,000,000

FINANCIAL ADVISOR

airband

has completed a private offering of senior notes

\$20,000,000

FINANCIAL ADVISOR & PLACEMENT AGENT

MEGACABLE

has received an investment from

C-TEC

SELL-SIDE ADVISOR

AUTEL

has completed a Public offering of Senior Notes

\$1,405,490,000

CO-MANAGER

DIGITAL CROSSROAD
a portfolio company of

STAR AMERICA INFRASTRUCTURE PARTNERS

has completed an equity financing

\$40,000,000

FINANCIAL ADVISOR

ILX Lightwave
Laser Diode Instrumentation & Test Systems

has been acquired by

Newport
Experience | Solutions

SELL-SIDE ADVISOR

OMNEX TRUSTED WIRELESS

has been acquired by

PECO

SELL-SIDE ADVISOR

ARISTA

has completed an initial public offering of common stock

\$259,612,500

CO-MANAGER

GRACEBA
HIGH PERFORMANCE

has been acquired by

KNOLOGY

SELL-SIDE ADVISOR

Unitek

has completed a follow-on offering of primary common stock

\$93,390,193

CO-MANAGER

RYZEX

has been acquired by

PEAK
Peak Technologies

SELL-SIDE ADVISOR

Includes transactions completed by current D.A. Davidson professionals prior to joining the firm



M&A Case Study: Voyantic Ltd.



Voyantic

has been acquired by



SELL-SIDE ADVISOR

BACKGROUND

Voyantic was founded in Finland in 2004 and is a respected global market leader in testing and measurement solutions for communications technology/IoT. The Company specializes in RAIN RFID which is a wireless technology that connects billions of everyday items to the Internet, enabling businesses and consumers to identify, locate, authenticate, and engage each item. Voyantic’s solutions are used by manufacturers, technology vendors, service bureaus and end users. The Company has more than 2,000 installed systems in more than 40 countries across the globe.

D.A. DAVIDSON MCF INTERNATIONAL ROLE

D.A. Davidson MCF International served as the exclusive advisor to Voyantic and helped facilitate the deal through its proven ability to successfully execute bilateral transactions. This deal highlights the success of the D.A. Davidson MCF International alliance and showcases the team’s deep communications technology/IoT expertise as well as its ability to execute cross-Atlantic transactions.

TRANSACTION CONCLUSION

Impinj is a leader in the IoT sector, manufacturing radio-frequency identification devices and software. Impinj extends the Internet’s reach from the cloud, through edge connectivity devices, all the way to physical items. Voyantic’s RAIN RFID solutions advance the Impinj platform’s leading position in RAIN RFID quality, reliability, and readability. Ultimately, the transaction creates more opportunities to grow and strengthens Impinj’s existing offering in the RAIN RFID end market.

CLIENT DESCRIPTION


Provider of RFID testing and measurement services for IoT devices

DEAL TYPE


Sell-Side M&A

SECTOR



Communications Equipment and Distribution



a portfolio company of



has been acquired by

SELL-SIDE ADVISOR

BACKGROUND

Alliance is Canada's largest value-added distributor of wireless communications technology and is one of the fastest growing distributors in the United States, providing mission-critical solutions to the leading wireless carriers across North America. The Company is one of only two scaled North American distributors with cable termination capabilities and supports the construction, maintenance and upgrades of cellular towers, indoor cellular service and broadband internet. Alliance distributes over 5,000 SKUs comprising virtually every product necessary for network builds, maintenance and upgrades, as well as terminates technologically advanced, custom cabling, for a broad range of end customers including carriers, internet service providers, contractors, building owners and other enterprises and government entities that utilize broadband infrastructure.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to Alliance. Davidson worked closely with Alliance's management to position the Company as an industry leader and conducted a targeted process that generated significant competitive interest from both strategic and financial parties, resulting in a premium valuation for shareholders.

TRANSACTION CONCLUSION

The Company's unique wireless services platform and leadership position in both distribution and cable termination, diversified customer base across all major U.S. and Canadian wireless carriers, and broad and experienced management team with deep relations in the industry made Alliance an attractive platform investment for Lee Equity and Twin Point Capital. Plans are in place to further accelerate growth, both organically and through strategic acquisitions, and expand the Company's leadership position in its core services and new adjacent services.

CLIENT DESCRIPTION

Distributor, solutions provider, and cable terminator for the wireless industry

DEAL TYPE

Sell-Side M&A

SECTOR

Communications Equipment and Distribution

“ We are incredibly thankful for the advice and expertise delivered by the D.A. Davidson technology investment banking team working on this transaction. Their industry knowledge in communications, transaction proficiency and ability to drive an efficient process delivered an outstanding outcome that has us confident about our next phase of growth. ”

- Ron Moss, President of Alliance Corporation

Testimonials may not be representative of the experience of all clients. Testimonials are not a guarantee of future performance or success



M&A Case Study: Computer Technology Link (CTL)



has been acquired by

Columbia River Partners

SELL-SIDE ADVISOR

CLIENT DESCRIPTION

Provider of communications hardware and systems

DEAL TYPE

Sell-Side M&A

SECTOR

Communications Equipment and EdTech

BACKGROUND

Founded in 1989, CTL is a leading provider of Google Chrome devices and other communications technology solutions and services to the education and business markets. The Company offers a comprehensive line of high quality, customer-driven computing devices, including laptop, tablet and mobile devices, desktop solutions, high performance monitors, video conferencing solutions, and server and storage solutions.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to CTL. The Company was owned by two shareholders consisting of CTL's founder and President. The founder was seeking liquidity for his stake in the company and, as a result, Davidson was hired to evaluate strategic options that would provide the best possible outcome for both the founder and the management team. The Davidson team leveraged its deep relationships with both strategic and financial parties and spent a significant amount of time working with the management team to best present the CTL story. As a result, Davidson was able to run an efficient process, guide the preferred buyer to a premium valuation, and structure a transaction that provided the desired liquidity for the Company's founder and a private equity partner for the management team.

TRANSACTION CONCLUSION

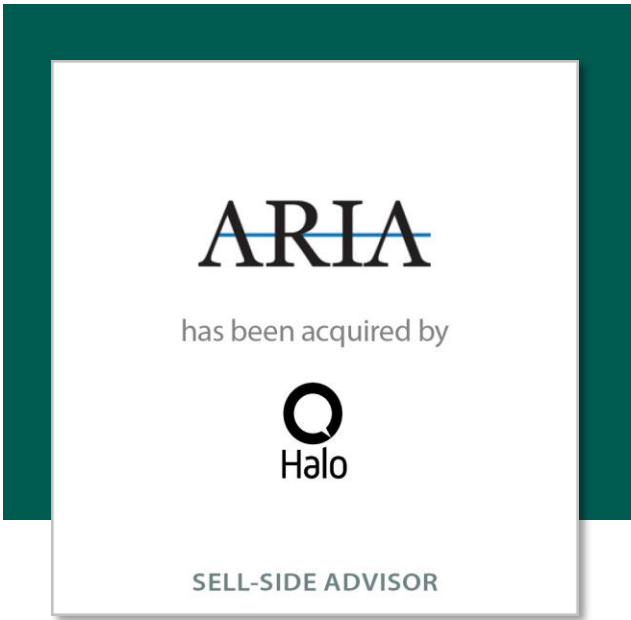
The founder and President were concerned with finding the right party that was optimal for the long-term viability of the business, while still maximizing value. Columbia River Partners brings significant relevant sector expertise and the additional growth capital necessary to continue to accelerate and execute on CTL's strategic growth opportunities, both domestically and internationally.



D.A. Davidson's experience and transaction expertise were critical in allowing CTL's shareholders to realize an optimal outcome while also finding CTL a partner that provides the capital and expertise to help best position the company for continued growth.

- Erik Stromquist, President of CTL





BACKGROUND

Aria Technologies is an industry leading designer, manufacturer, and provider of fiber optic connectivity solutions located in the San Francisco Bay Area. The Company specializes in fiber optic assemblies, patch panels and other fiber optic and copper-based network components as well as in-house custom engineering, design, and fabrication services. Aria Technologies’ dedication to customer satisfaction has made the company a trusted partner to 270+ customers, including Fortune 500 companies and some of the world’s most recognized and demanding cable TV, telecommunications, and data center providers.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to Aria Technologies. Davidson worked closely with Aria Technologies’ management team to conduct a targeted M&A process that provided the Company with competitive interest from financial and strategic acquirers, resulting in multiple pre-emptive bids and an accelerated close for the founders.

TRANSACTION CONCLUSION

The combination of Aria’s design capabilities coupled with their pre-assembled and tested enterprise-class optical components strengthen Halo’s product offering allowing them to meet the optical solution needs of any customer across the globe.

CLIENT DESCRIPTION

Designer and manufacturer of fiber optic connectivity solutions

DEAL TYPE

Sell-Side M&A

SECTOR

Communications Equipment and Distribution

“
The D.A. Davidson technology investment banking team was invaluable in the outcome of this transaction. The team’s industry expertise and transaction execution capabilities enabled the shareholders to realize the optimal outcome while also best positioning Aria Technologies for future growth.
- **Joe McGuinness, President of Aria Technologies**”

Testimonials may not be representative of the experience of all clients. Testimonials are not a guarantee of future performance or success



BACKGROUND

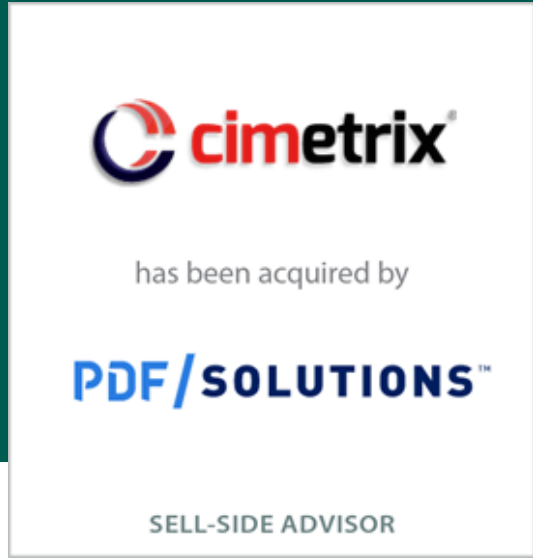
Cimetrix is a leading global provider of equipment connectivity software solutions for smart manufacturing, Industrial IoT and Industry 4.0, with products and platforms that connect factory equipment to increase productivity, reduce costs, and improve quality. The company's software solutions are used by equipment manufacturers around the world, providing factory automation connectivity for multiple equipment types. Headquartered in Salt Lake City, Utah, Cimetrix has offices worldwide in China, Germany, Japan, Korea and Taiwan.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to Cimetrix. Davidson worked closely with Cimetrix's management to conduct a targeted M&A process that provided the Company with competitive interest from multiple acquirers, resulting in a merger with PDF solutions, a leading provider of advanced analytics solutions and differentiated data for semiconductor and electronics manufacturing.

TRANSACTION CONCLUSION

The combination of Cimetrix connectivity products and platforms with PDF Solutions Exensio analytics platform, enables semiconductor and electronics manufacturers to extract more intelligence, not just data, from their factory floor, and as a result, build more reliable ICs and systems at lower manufacturing costs. As a combined entity the Company is able to deliver the highest level of tool and manufacturing intelligence from the factory floor to enable customers to realize the benefits of Industry 4.0.



CLIENT DESCRIPTION

Provider of smart factory connectivity software solutions

DEAL TYPE

Sell-Side M&A

SECTOR

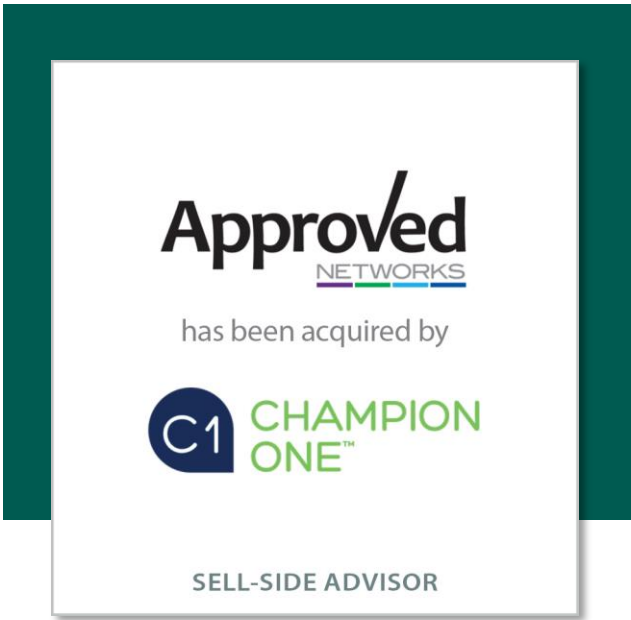
IIoT Software & Communications



The D.A. Davidson team was invaluable in this process, providing the transaction expertise and industry knowledge necessary to achieve an optimal outcome for Cimetrix and its shareholders. We are excited to move forward as the Cimetrix Connectivity Group within PDF Solutions to continue serving our customers by providing innovative connectivity and smart manufacturing software products, platforms, and solutions.

- Bob Reback, CEO of Cimetrix





BACKGROUND

Based in Lake Forest, California, and founded in 2009, Approved Networks is a leading provider of optical networking solutions for the smart data center. Approved Networks has created one of the most comprehensive and innovative testing facilities in the U.S. and boasts relationships with 3,000+ clients in 30+ countries, including Fortune 500 companies and many of the largest data centers, telecommunications companies, and enterprises across the globe. Approved’s stellar industry reputation for high-quality products and services augmented by its consistent innovation has allowed it to deliver first-to-market compatibility solutions in the most rigorous optical networking environments for over a decade.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to Approved Networks. Davidson worked closely with Approved Network’s management to conduct a targeted M&A process that provided management with competitive interest from a select group of acquirers, resulting in a premium valuation for shareholders.

TRANSACTION CONCLUSION

The combination of Approved Networks and Champion ONE has created one of the most comprehensive designers, marketers, and providers of carrier grade optical transceivers and related mission critical components to telecommunications, cable, data center, and enterprise customers in North America and International markets.

CLIENT DESCRIPTION

Provider of networking equipment and cable solutions

DEAL TYPE

Sell-Side M&A

SECTOR

Communications Equipment and Distribution

“ We are incredibly thankful for the advice and expertise delivered by the D.A. Davidson technology investment banking team working on this transaction. Their buyer knowledge, transaction proficiency, and ability to drive an efficient process delivered an impressive outcome that has us excited about our next phase of growth. ”
- Kurt Dunteman, CEO of Approved Networks



M&A Case Study: Cable Exchange



has been acquired by



SELL-SIDE ADVISOR

BACKGROUND

Based in Santa Ana, California, Cable Exchange manufactures a variety of fiber optic and copper cables, trunks and related products used in high-capacity data centers and other business enterprise applications. The company, founded in 1986, specializes in quick-turn delivery of its infrastructure products to customers from its two U.S. manufacturing centers located in Santa Ana, CA, and Pineville, N.C.

D.A. DAVIDSON ROLE

D.A. Davidson served as exclusive financial advisor to Cable Exchange. Having scaled the business to a leadership position in its niche, the Company's founders hired D.A. Davidson to sell Cable Exchange to a buyer that would retain the existing team and be able to execute on its strategic growth initiatives. D.A. Davidson presented Cable Exchange as a technology leader, providing quick-turn capabilities that were unheard of in the industry but were quickly becoming the standard for hyper-converged data center customers. Having received significant interest from several strategic parties, Davidson ran a targeted process focused on several strategic and highly relevant financial parties.

TRANSACTION CONCLUSION

Despite concerns around cyclical and customer concentration, Davidson was able to solicit multiple bids and drive the preferred buyer to a premium valuation, all in less than 90 days from initial outreach to completion of the transaction. With the acquisition, CommScope is now able to add quick-turn capabilities to its high-growth data center business.

CLIENT DESCRIPTION

Manufacturer of fiber optic and copper cables, trunks and related products for enterprise applications

DEAL TYPE

Sell-Side M&A

SECTOR

Communications Equipment and Networking



D.A. Davidson played a critical role in helping us realize this partnership with CommScope. The team's expertise and capabilities allowed us to efficiently come to an agreement while maintaining our focus on serving our customers.

- Dan Bowlin, CFO of Cable Exchange



SECTION 02

Trends In Cloud Infrastructure and Communications





Key Trends In The Cloud Infrastructure and Communications Industry In 2023

5G CONNECTIVITY IS POISED TO EXPAND FOLLOWING AMERICA'S LARGEST EVER SPECTRUM AUCTION

- The FCC completed its auction of C-Band spectrum (Auction 107) in February of 2021, in the first big auction of valuable, unencumbered mid-band spectrum licenses in the US. The C-Band auction raised a historic \$81 billion, which indicates the tremendous value carriers see in the next generation 5G network. Worldwide 5G connections reached an estimated 1.1 billion by the end of 2022 and are projected to reach 5.9 billion by the end of 2027, representing an increase of 436%, driven by rapidly rising global data needs. ^(1,2,3,4)
- Spectrum spend is expected to accelerate the 5G build-out as carriers are highly motivated to build quickly or lose their spectrum licenses, as well as customers. These licenses are especially valuable to 5G network operators, as available mid-band frequencies are a key component to deploying 5G wireless networks.
- Auction 107 was easily the largest-ever spectrum auction, far exceeding the record for gross bid proceeds of \$45 billion raised in 2015 by the AWS-3 spectrum auction. Canada hosted a similar auction in July 2021 boasting 3500 MHz spectrum, which generated a record \$7.2 billion. ⁽⁵⁾
- In January 2022, AT&T led bidders in a Federal Communications Commission (FCC) 5G spectrum auction of 3.45 GHz band spectrum, generating proceeds of \$22.5 billion. ⁽⁶⁾
- In total, the Big 4 U.S. wireless carriers - AT&T Inc., Verizon Communications Inc., T-Mobile US Inc. and DISH Network Corp. - collectively spent nearly \$100 billion across the 3.45 GHz and C-Band auctions.

5G Rollout Roadmap by Year



CLOUD SPENDING AND USAGE IS BOOMING

- Worldwide cloud infrastructure spending grew an estimated 17% during 2022 to \$90 billion. ⁽⁷⁾
- Accelerated cloud adoption is dependent on a fast and reliable communications network, whether it is in the data center, fiber to the home, edge networking, 5G or elsewhere. ^(8,9)
- COVID-19 accelerated the long-term shift to the cloud, as 92% of enterprises now employ a multi-cloud strategy, while 80% employ a hybrid cloud strategy. The mass migration to a remote, digital-first society has directly driven increased cloud demand, as worldwide end-user spending on public cloud services grew an estimated 19% in 2022, totaling \$490 billion, and is expected to reach \$600 billion by the end of 2023. ⁽¹⁰⁾

GOV. STIMULUS IS DRIVING BROADBAND INFRASTRUCTURE DEVELOPMENT

- The United States and Canadian governments have proposed/allocated an approximate combined \$275 billion between both the federal and state level in potential funding for broadband infrastructure.
- Currently, over 42 million Americans lack broadband access, and the government is focused on reducing the digital divide by providing internet access to these underserved populations. ^(1,11)
- The United States government is prepared to spend tens of billions of dollars in order to bridge this digital divide. The total amount needed in order to achieve universal broadband in the United States is estimated to be ~\$80 billion, of which \$20.4 billion has already been allocated through Rural Digital Opportunity Fund.



Rising Global Data Volume Needs

The global datasphere is projected to triple in growth by 2025 as enterprises and consumers become more dependent on it for business and personal applications



5G Tailwinds

Over the course of the next 5-7 years, carriers in North America are projected to spend over \$250 billion on wireless, not including spectrum spend



IoT Device Explosion

5 billion connections will be related to IoT by 2025, driven by massive end market expansion.



Public Safety DAS

New government regulations requiring wireless connectivity in all buildings for emergency responders will propel the public safety DAS market to grow 9x by 2027

Sources: 1) BroadbandNow Research, 'BroadbandNow Estimates for all 50 States' (October 2022); 2) Gartner, 'Gartner Forecasts Worldwide Public Cloud End-User Spending to Grow 23% in 2021' (April 2021); 3) Barron's 'Telecom Companies Just Spent \$81 Billion on 5G Spectrum' (February 2021); 4) 5G Americas Media Release (December 2022); 5) Reuter's 'Canada's spectrum auction raises record \$7.2 bln as firms gear for high-speed internet' (July 2021); 6) Reuter's 'AT&T leads bidders in \$22.5 billion U.S. spectrum auction' (January 2022); 7) IDC 'Worldwide Quarterly Enterprise Infrastructure Tracker: Buyer and Cloud Deployment' (September 2022); 8) Markets and Markets, 'Artificial Intelligence (AI) Market worth \$309.6 billion by 2026' (May 2021); 9) Bond Capital, 'Our New World 2020' (April 2020); 10) Gartner, 'Worldwide Public Cloud End-User Spending to Reach Nearly \$600 Billion in 2023' (October 2022); 11) Microsoft



Data Volume and Global Connectivity Are Driving The Proliferation of Cloud Services

ACCELERATING CLOUD GROWTH & RATE OF ADOPTION...

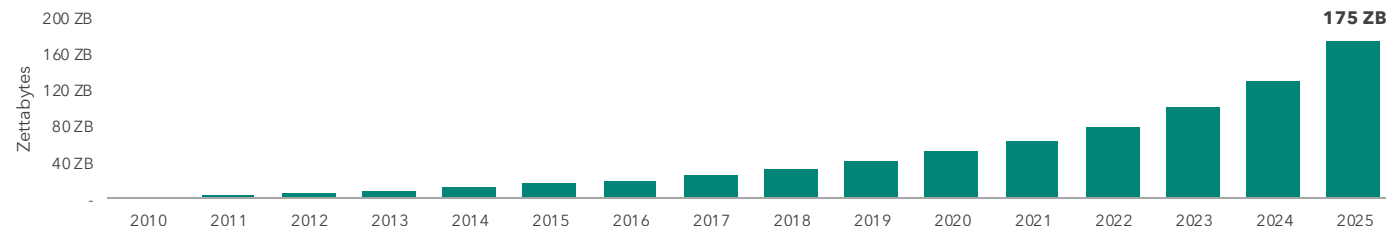
- Cloud services is one of the most dramatic emerging technologies of the past decade and remains the main driver of change in enterprise technology stacks, from SaaS to Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Communications Platform as a Service (CPaaS), Unified Communications as a Service (UCaaS), Video Conferencing as a Service (VCaaS) and more, hosted in public and private datacenters. ⁽¹⁾
- The shift in the top PaaS services used by organizations, favoring data warehousing, relational Database as a Service (DBaaS) and Container as a Service (CaaS), is driven by growing interest in leveraging containers to speed deployment, scale operations, and increase cloud-run workload efficiency. ⁽²⁾

...SUPPORTED BY INCREASED INVESTMENT & INTERNET SPEED

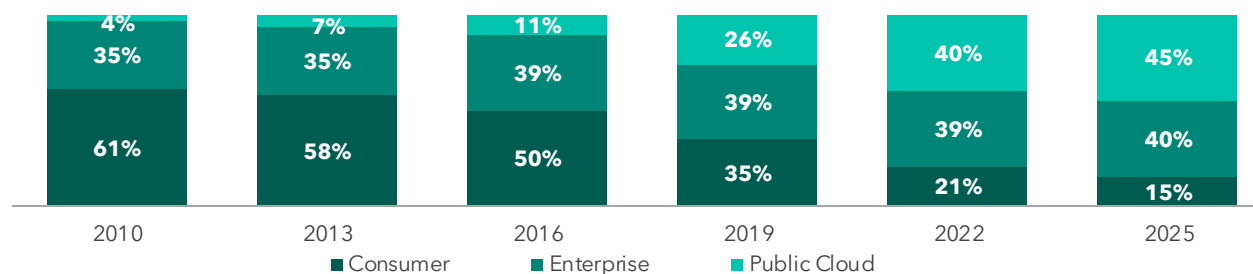
- Rising global internet usage has enabled growth and innovation in cloud-based platforms, including greater access to fast wireless and broadband communications infrastructure, emerging 5G technology, smartphone proliferation, video on demand, VoIP, and digital media.
- Major technology and cloud service providers have reacted by investing in hyperscale datacenters, used by organizations managing massive levels of data generated by VR, big data, social media, analytics and data gathered by IoT devices. Hyperscale data centers have experienced a straight line trajectory, with an average of 16 new data centers emerging per quarter over the last 3 years. By mid-year 2023, there were more than 900 hyperscale data centers in operation around the world, with an additional few hundred in the works. ⁽³⁾
- The growing importance of cloud services and corresponding infrastructure is driven by an explosive expansion in data that companies want to manage, analyze and draw conclusions from. Cloud services are being adopted at a rapid rate and are already a massive market which is projected to grow 21% in 2023. ⁽⁴⁾ Furthermore, by 2024, public and private cloud deployment will account for nearly 65% of worldwide IT infrastructure spending. ⁽⁵⁾

CLOUD DOMINATES IN AN INCREASINGLY DATA-DRIVEN WORLD

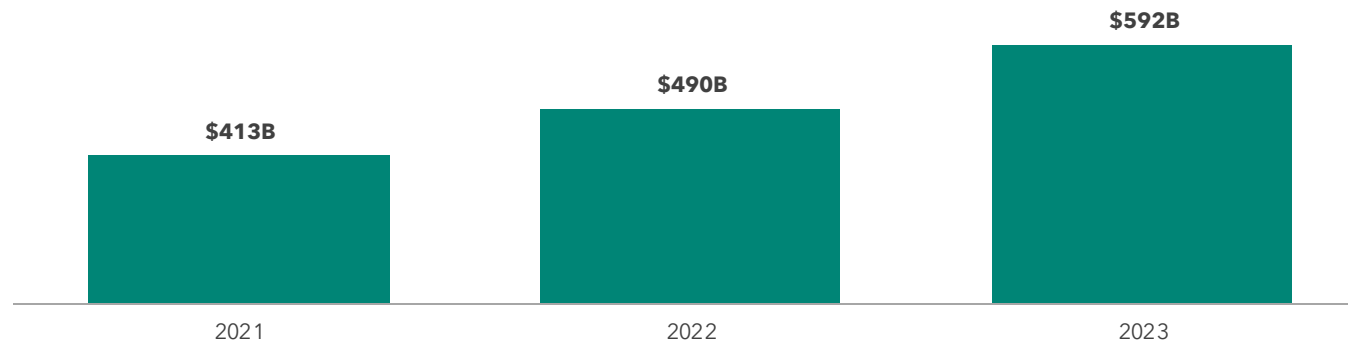
Global Datasphere: New Data Captured / Created / Replicated ^(6,7)



Data Stored by Manager ^(6,7)



Worldwide Public Cloud Service Revenue Forecast, per Gartner ⁽⁴⁾



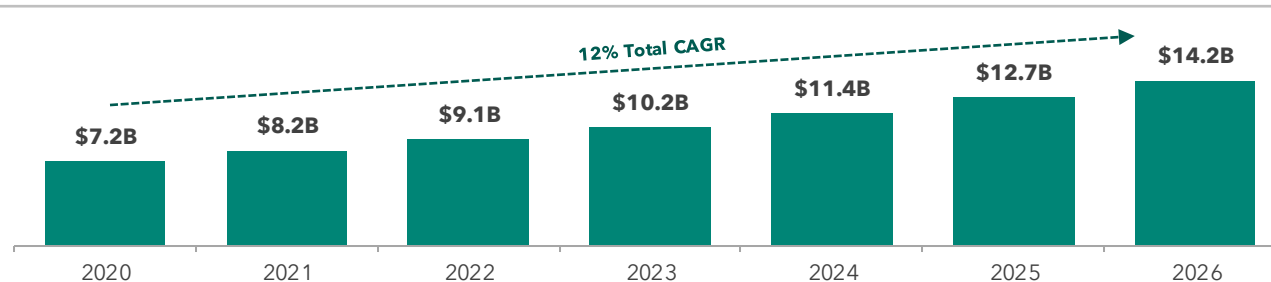
Sources: 1) Calero, 'Top 5 Emerging Trends Impacting Communications Technology for 2019' (December 2018); 2) Gartner, '2021 State of the Cloud Report' (March 2021); 3) Synergy Research Group, 'Hyperscale Data Center Capacity to Almost Triple in Next Six Years, Driven by AI' (October 2023); 4) Gartner, 'Worldwide Public Cloud End-User Spending' (October 2022); 5) IDC, Statista Estimates, 'IT Infrastructure Spending Forecast by Type' (7/30/2021); 6) Bord Capital, Mary Meeke 'Internet Trends 2019' (5/11/2019); 7) IDC, 'Digitization of the World From Edge to Core White Paper' developed in collaboration with Seagate (November 2018). Note: Consumer refers to devices owned by end users; Note: 2018 = last full year before release of report. 2019-2025 are estimated from current trends



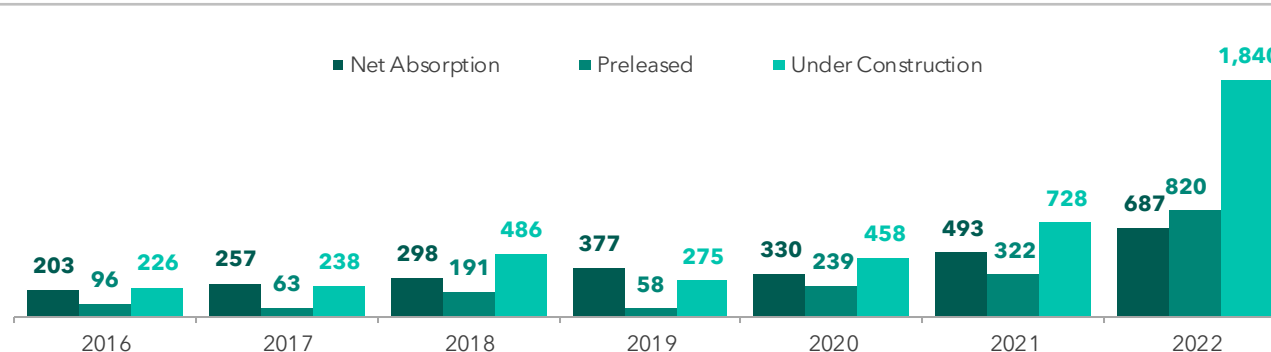
Key Trends In The Data Center

- The data center sector continues to benefit from the ongoing digitization of the global economy, fueled by the ever-rising demand for e-commerce, the explosive growth of edge computing, and other secular trends including Artificial Intelligence (AI).
- The COVID-19 pandemic also boosted demand for many cloud and IT services. Many businesses found themselves with a sudden and heightened need for greater cloud technologies to connect their dispersed workforces in a work-from-home environment. This trend continued through 2022 and 2023 as cloud migration accelerated and as major data-producing platforms, hyperscalers (Google, Amazon, Microsoft, etc.), and others continued to rapidly grow their global data center footprints.
- The US data center construction market was valued at an estimated \$9.1B in 2022, and it is expected to achieve a value of \$14.2B by 2026, registering a CAGR of 12% over the period. The leading data center markets ranked by cost of construction included New Jersey (\$9.8 per watt), Silicon Valley (\$9.8 per watt), and Northern Virginia (\$8.4 per watt). ⁽¹⁾
- Despite the current broader economic environment and supply chain disruptions causing some construction timelines to be extended the construction pipeline within primary markets, which includes Northern Virginia, Dallas/Ft. Worth, Silicon Valley, Chicago, Phoenix, Atlanta, and New York Tri-State, increased 153% YoY, to 1,840 MW. ⁽²⁾
- Primary markets saw 687 MW of positive absorption in 2022, up 193.6 MW (39%) from 2021. Northern Virginia, the world's largest data center market, accounted for 64% of this total. ⁽²⁾
- However, secondary markets continue to be the location of choice for edge deployments and for emerging use cases such as AI and block chain technologies, as such deployments allow companies to bring the connectivity closer to the source.
- Hyperscale public cloud vendors have been on a growth binge for a decade and today represent roughly 70-80% of all leasing in any given quarter. This growth is expected to continue through 2027, with hyperscale cloud revenue projected to reach ~\$728B, representing a CAGR of 41% as further entities choose to move more of their workloads to the public cloud for scalability and ease of access. ⁽³⁾

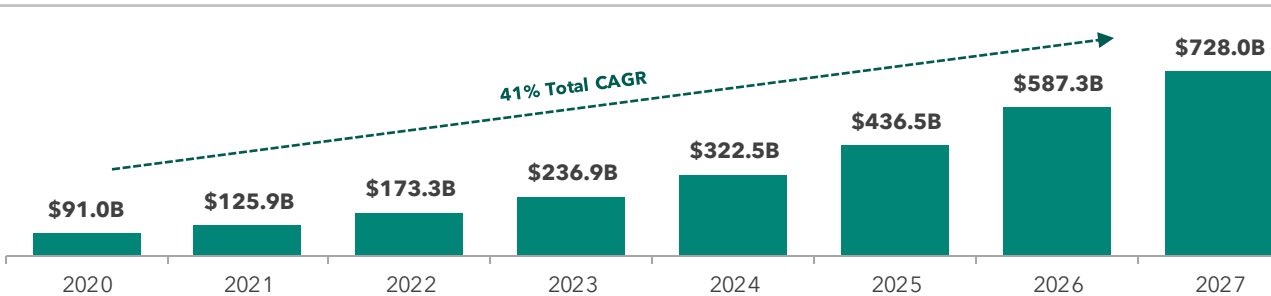
GROWING U.S. DATA CENTER CONSTRUCTION SPEND ⁽¹⁾



RECORD PRIMARY MARKETS NET ABSORPTION, PRELEASING, AND UNDER CONSTRUCTION (IN MEGAWATTS)⁽²⁾



GLOBAL HYPERSCALE CLOUD REVENUE⁽³⁾



Sources: 1) Mordor Intelligence, United States Data Center Construction Market; 2) CBRE, North American Data Center Trends Report H2 2022; 3) Cushman & Wakefield, 2023 Global Data Center Market Comparison; Structure Research



Artificial Intelligence (AI) Is Booming - Placing Greater Demand On Data Center Providers

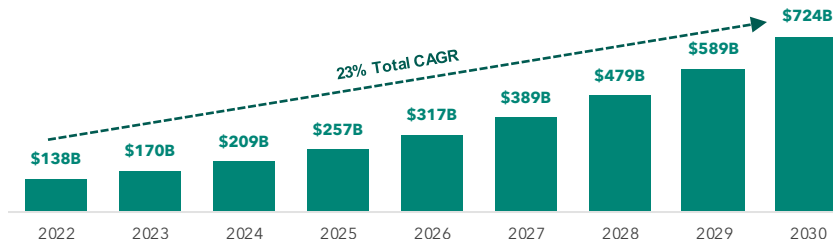
- The Rapid Growth and Adoption of Artificial Intelligence:** Tech giants including Amazon, Google, Apple, Meta, Nvidia, and others are investing heavily into the development of AI. Notably, OpenAI's ChatGPT, a human-like chatbot that understands and responds to inputs from users, has exploded in popularity and has brought AI into the mainstream for consumers, reaching 1 million users just 5 days after launch and 100 million monthly active users by January 2023 just two months later, making ChatGPT one of the fastest growing consumer applications ever. Today, ChatGPT now boasts over 1.5 billion monthly visits, making it one of the top 20 websites in the world. ⁽¹⁾

- Role of Data Centers in Supporting Artificial Intelligence:** These new emerging AI applications rely on the availability of and capability to process in real-time vast amounts of data leading to a growing demand for data centers to store, process, and analyze this information. As more organizations and consumers adopt AI there continues to be a significant rise in data generation in the data center as AI workloads include applications based on machine learning and deep learning. It is projected that half of all data centers will be used to at least partially support AI programs by 2025. As a result, by 2030 it is expected that 30% of all data center server infrastructure spend will go towards serving AI or related workloads, up from just 2% in 2020. ^(4,5)

- Artificial Intelligence is Reshaping the Data Center:** Data centers are evolving to better support their AI workloads with specialized buildings, enhanced power, sustainable cooling technologies (e.g. zero water), and advanced hardware. At the same, AI also presents new opportunities to improve and automate certain operations within the data center. Through deeper integration with AI enabled functions such as IoT, smart sensors, and predictive analytics data centers can better optimize their performance and manage their components. For example, Google cites being able to reduce 40% of its data center's cooling costs just by controlling its cooling infrastructure through AI programs. ⁽⁶⁾

GROWING DEMAND FOR ARTIFICIAL INTELLIGENCE APPLICATIONS ^(1,2)

Global Market For AI Software ⁽²⁾

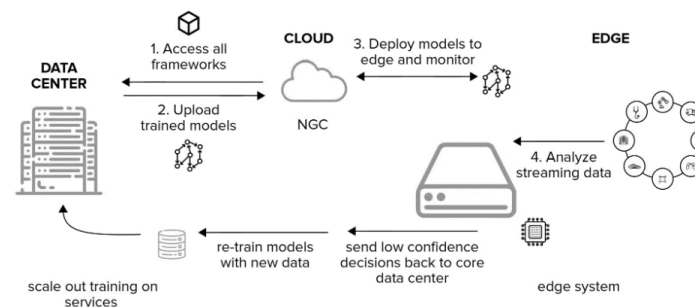


ChatGPT: One Of The Fastest Growing Consumer Application Ever ⁽¹⁾

Time to reach one million users for select online services

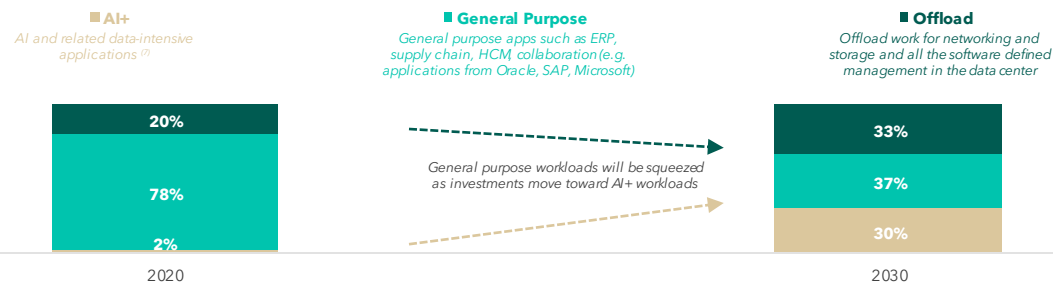


ILLUSTRATIVE LIFECYCLE OF AN EDGE AI APPLICATION ⁽³⁾



SHIFT OF FOCUS IN THE DATA CENTER ⁽⁵⁾

Data Center Server Infrastructure Spend By Workload Type



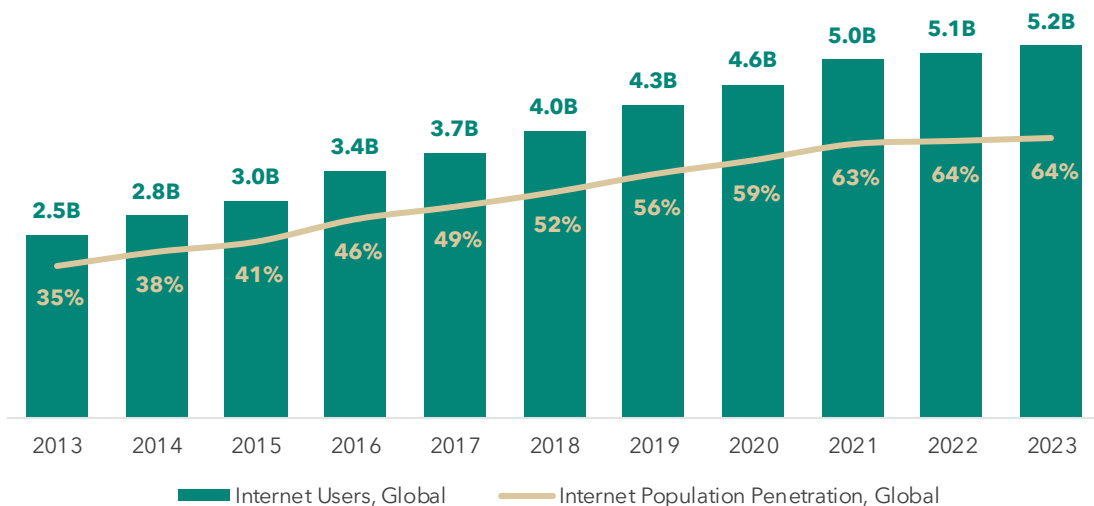
Sources: 1) Company public announcements, Reuters, Statista, EconomicTimes; 2) Precedence Research, Artificial Intelligence (AI) Software Market Forecast 2023-2032; 3) JLL, "Hyperscale and edge drive data center demand as the rise of AI takes center stage"; 4) Terasol Technologies, "What is Edge AI- The New Wave of AI?"; 5) Wikibon Research, 2021; 6) Google DeepMind, "DeepMind AI Reduces Google Data Centre Cooling Bill by 40%"; 7) Includes real-time systems of intelligence, real-time analytics, AI inferencing, robotics, autonomous vehicles, and other data-driven real-time or near real-time use cases



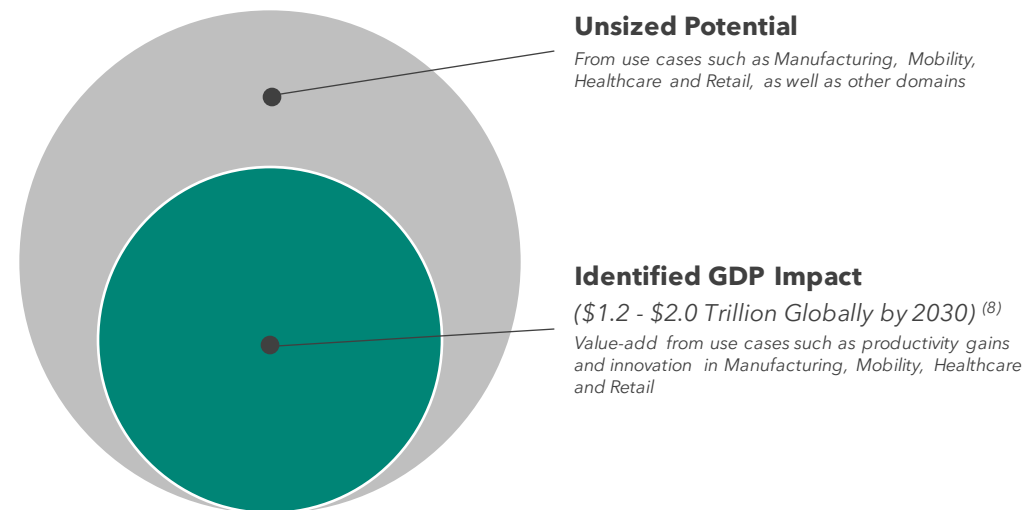
5G Rollout Is Poised To Supercharge Network Speeds and Data Usage

- 5G is the fifth generation of cellular mobile communications and represents a fundamental shift in communication network architectures, promising lower latency, higher bandwidth and much greater speeds relative to its predecessors. Major players in the transformation to 5G include telecommunications services providers, transmission equipment makers, antenna manufacturers, and data center infrastructure providers. ⁽¹⁾
- 5G is driving a number of new connected services that were not previously possible, or harder to accomplish at scale with 4G. Core 5G use cases include enhanced mobile broadband, mission-critical communications, and massive IoT, although increasingly relevant use cases include self-driving automobiles, virtual reality and augmented reality, edge computing acceleration, smart factory 4.0, smart cities and buildings, and energy preservation applications.
- 5G must be deployed across network infrastructure at every stage, and billions of dollars of capex will be needed. While 5G could take years to achieve ubiquity, it is already a massive market with strong momentum and is becoming increasingly deployed.
 - The worldwide 5G market size is projected to reach \$720 billion by 2030, primarily comprised of mobile services, fixed wireless services, and narrow-band IoT. Specifically, 5G contribution to United States GDP by 2030 is expected to eclipse \$484 billion, doubling the economic gain accruing to the next closest country. ⁽²⁾
 - 5G commercial rollouts continued to accelerate, reaching 238 deployed 5G networks in 94 markets worldwide by December 2022. ⁽³⁾
 - Worldwide 5G connections are projected to grow at a CAGR of 40% from 1.1 billion in 2022 to 5.9 billion by the end of 2027. ⁽⁴⁾
 - Wireless capital expenditures for major carriers such as T-Mobile, AT&T, Verizon and Dish are projected to begin ramping up significantly over the next 5 years with these carriers expected to spend 41% more a year on average in capex through 2025, in comparison to annual capex spending in years 2018-2020. ⁽⁵⁾

5G IS POISED TO SUPPORT A MASSIVE AND GROWING WORLD OF INTERNET USERS ⁽⁶⁾



SPECIFIC 5G APPLICATIONS CAN UNLOCK TRILLIONS IN GLOBAL VALUE ⁽⁷⁾



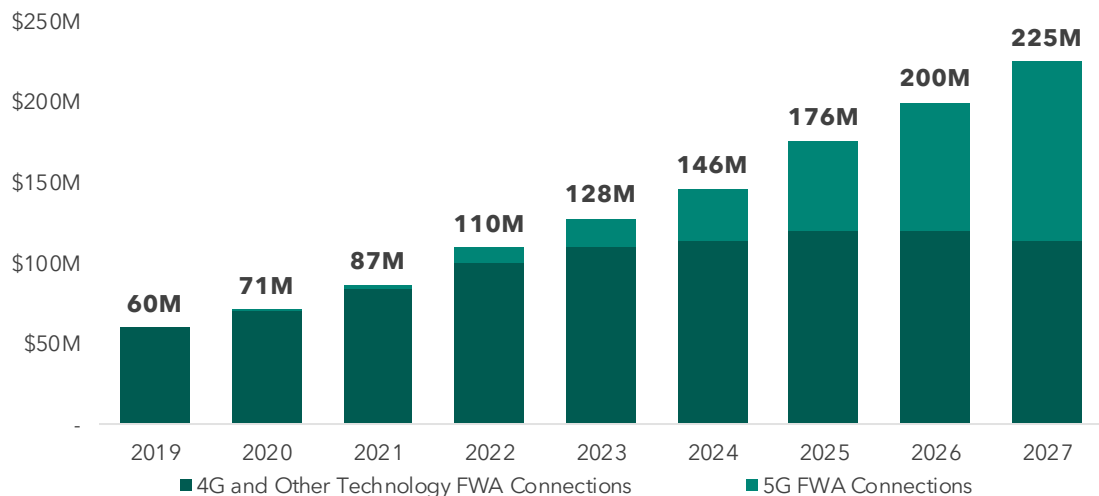
Sources: 1) Qualcomm, 'Everything you need to know about 5G'; 2) IDTechEx, '5G Technology, Market and Forecasts 2020-2030' (1/12/2021); 3) S&P Global Market Intelligence (2/21/2023); 4) 5G Americas, 'Exploding 5G Adoption Continues Around The World' (December 2022); 5) Credit Suisse, 'American Tower - 1Q Preview - Pos. Well for C-Band Act...' (April 2021); 6) DataReportal, 'Digital Around The World' (January 2023); 7) McKinsey Global Institute, 'Connected World'; Segment of distinctive B2B use cases



Fixed Wireless: Early Days of Mainstream Commercial Growth

- **Growth story supported by underlying economics:** 5G provides access to home and enterprise broadband through fixed wireless access (FWA). While FWA has been around for over a decade (3G, 4G), 5G FWA offers speeds up to 10x previous generations of fixed wireless and is competitive with DSL, cable, and fiber broadband providers.⁽¹⁾ With the diminished gap in performance, FWA offers compelling economics, given the relative ease of deploying infrastructure. In the words of Nokia President of Network Infrastructure, Federico Guillén, "...there is always going to be a remaining 10, 20, 30% of the population where it's impossible to lay fiber because economically it doesn't make sense .. In those cases, fixed wireless is a complement, a nice complement to fiber."⁽²⁾
- FWA is a particularly attractive option to provide broadband service to areas challenged by zoning restrictions and density issues (for example, multi-dwelling unit communities). FWA is also a viable broadband solution to serve communities with under-developed existing broadband, as well as a solution for enterprises.⁽²⁾ Interestingly, FWA solutions had higher NPS customer experience scores compared to fiber, cable, and DSL.⁽³⁾
- **Increasing market opportunity as carriers increasingly focus on 5G FWA as a growth lever:** 2022 gave the first substantial evidence of commercial acceleration as 5G FWA became a tangible growth opportunity for US carriers. T-Mobile set a goal of 7-8M FWA subscribers by the end of 2025 - representing 20-30% penetration of potential homes. Verizon, too, set an end of 2025 target of at least 1M FWA business customers. While carriers are likely to add FWA subscribers easily in the near-future - eventual capacity constraints could cap growth.⁽⁴⁾
- **Recent mainstream momentum and investor focus:** By the end of Q3-2022, T-Mobile was serving over 2M high-speed internet customers (the majority being FWA) - a new segment in the past 18 months - with 578,000 added in the third quarter.⁽⁵⁾ Verizon, which initially offered 5G FWA in 2018, added 342,000 fixed wireless customers in Q3, with a split of customers between home and business segments.⁽⁶⁾ Verizon is expected to continue accelerated FWA build-out to compete with T-Mobile, which is widely seen as the FWA leader in terms of customers and coverage. Investors, too, are leaning into the growth story - highlighted by Northleaf Capital Partners' \$230M buyout of Mercury Broadband in November 2022.

5G FWA CONNECTIONS PROJECTED TO EXCEED 100M BY 2027⁽¹⁾



5G FWA SPEEDS CAPABLE OF RIVALING CONVENTIONAL BROADBAND⁽¹⁾

	Technology	Download Speed Range (Average)
DSL	ADSL / ADSL2+	24 Mbps
	FTTC / VDSL2	200 Mbps
	G.Fast	100 Mbps - 1 Gbps
Fiber	FTTP/H	2.4-40 Gbps
Cable	DOCSIS 3.1	10 Gbps
Satellite	LEO Satellite Broadband	50-500 Mbps
FWA	LTE (4G)	Up to 100 Mbps
	5G	1-10 Gbps*

Sources: 1) GSMA Intelligence - 5G fixed wireless: a renewed playbook; 2) Fierce Wireless: Nokia Exec: FWA a 'nice complement' to fiber; 3) Recon Analytics Data, 4/29/22 through 6/24/22; 4) Fierce Wireless: T-Mobile expands 5G fixed wireless across three more states; 5) Fierce Wireless: T-Mobile beats AT&T in phone net adds in Q3, posting 854k; 6) Fierce Wireless: Verizon Fios gains 61K subs, pushing base past 7M



Fiscal Stimulus Is Supporting The Development of Broadband Infrastructure

BRIDGING A DIGITAL DIVIDE

Meeting Needs of Underserved Communities

Prior to the COVID-19 pandemic, states and carriers began organizing to facilitate broadband access for underserved areas of the United States. Currently, more than 42 million Americans lack any broadband access. ^(1,2)

Communities without reliable high-speed internet service lack the same opportunities existing in neighborhoods with a more robust network. Oftentimes, wireless is the preferred method used to connect underserved communities.

The government is prepared to spend a significant amount of dollars in order to bridge this digital divide. In November 2021, President Joe Biden signed a \$1.2 trillion infrastructure bill (Infrastructure Investment and Jobs Act) that includes \$65 billion for broadband, expanding internet access to more Americans in efforts to close the digital divide.

RAPIDLY GROWING MARKET FOR PUBLIC SAFETY IN-BUILDING DAS

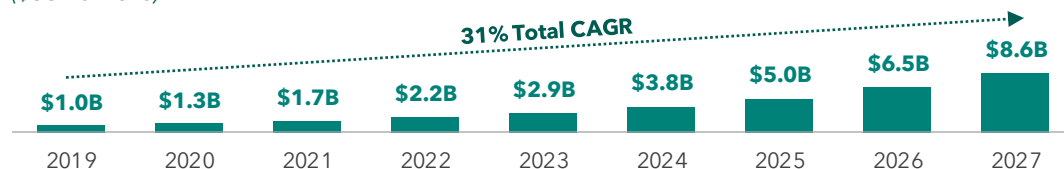
Public Safety Distributed Antenna Systems (DAS)

Virtually every city in the U.S. and Canada has enacted local ordinances and building codes making in-building coverage for first responders mandatory.

These government regulations to enable first responder communications are driving the demand for public safety DAS products and are often required prior to receiving an occupancy permit. As a result, the global market for public safety in-building DAS is expected to grow at 31% CAGR through 2027.

The public safety DAS market includes FirstNet, an entirely new network focused on first responders that began deployment in 2018 with AT&T. The network is federally mandated and its purpose is to create a nationwide blanket of coverage for first responders.

GLOBAL PUBLIC SAFETY IN-BUILDING WIRELESS DAS MARKET SIZE ⁽¹¹⁾
(\$USD billions)



Sources: 1) BroadbandNow Research, 'BroadbandNow Estimates for all 50 States' (October 2022); 2) Microsoft; 3) Federal Communications Commission (1/29/2021); (3/10/2022); (January 2023); 4) Fierce Telecom 'FCC unleashes \$1.04B in RDOF funding but big bidders still waiting' (12/17/2021); 5) National Conference of State Legislatures (1/11/2021); 6) Universal Service Administration Co. 'CAF Phase II'; 7) Broadband USA; 8) National Conference of State Legislatures (3/1/2021); 9) Next infrastructure bill aims to end 'digital divide' (3/16/2021); 10) CNET, 'Digital divide fix gets a boost as Biden signs \$1.2 trillion infrastructure bill' (10/14/2021); 11) Verified Market Research

TOTAL FEDERAL STIMULUS	
Rural Digital Opportunity Fund (RDOF) ^(3,4)	<ul style="list-style-type: none"> \$20.4 billion 10-year fund established by the FCC in January 2020 to bring reliable and affordable high speed fixed broadband service to rural areas \$640 million in broadband funding by the FCC for nearly 300 carriers in 47 states serving over 2.6 million locations In the Phase I auction (Auction 904), 180 bidders won \$9.2 billion to provide broadband to 5.2 million locations.
Consolidated Appropriations Act, 2021 (CAA) ⁽⁵⁾	<ul style="list-style-type: none"> \$7.2 billion allocated for broadband projects to support broadband access for students, families and unemployed workers Broadband provisions focused on building out network infrastructure in underserved communities with significant "rip and replace" efforts
Connect America Fund (CAF) ⁽⁶⁾	<ul style="list-style-type: none"> As of November 17, 2022, total winning bids for Phase II Auction of the Connect America Fund had amounted to \$1.5 billion support network construction in the coming years ⁽³⁾ A majority of companies accepting CAF Phase II support have six years to plan and deploy broadband to consumers
Broadband Equity, Access and Deployment (BEAD) ⁽⁷⁾	<ul style="list-style-type: none"> Provides \$42.45 billion to expand high-speed internet access by funding planning, infrastructure deployment and adoption programs in all 50 states, Washington D.C., Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands
Additional Federal Broadband Funding	<ul style="list-style-type: none"> \$1.9 trillion American Rescue Plan Act of 2021 establishes \$10 billion Capital Project Fund to deploy critical capital projects ⁽⁸⁾ CARES Act included \$150 billion to cover expansion of connectivity ⁽⁹⁾ \$1.2 trillion Infrastructure Investment and Jobs Act signed in November 2021 includes \$65 billion for broadband, expanding internet access to more Americans ⁽¹⁰⁾

IMPLEMENTATION OF PRIVATE BROADBAND SYSTEMS IN THE U.S.

- Rather than relying on public networks, organizations have begun deploying private networks to provide wireless broadband connectivity while maintaining control of the system. This grants organizations access to the benefits of on-premise traffic, including improved speed, latency, security, and privacy.
- The private LTE market globally reached an estimated \$5.6 billion in 2022, and is projected to grow to \$10.6 billion by 2027, representing a CAGR of 14%. Some key drivers shaping market outlook are the availability of unlicensed spectrum, growing demand in industrial and commercial IoT, and mobile robotics and machine learning. ⁽¹⁾
- Cellular in-building DAS systems are becoming a critical part of both carrier cellular networks and enterprise infrastructure, and the market is expected to grow at a 13% CAGR through 2025. ⁽²⁾
- DAS provides a high capacity network within locations that would typically overload a local network (stadiums, airports, colleges, music venues, etc.) or would normally not allow for usable signals to reach users (high-rise buildings, concrete-walled structures, etc.). Because so many new builds utilize materials that block RF signals, internal DAS systems will play an integral role in delivering uninterrupted coverage.

PRIVATE NETWORKS HELP COMPANIES GO GREEN

- Private wireless networks are helping companies conserve energy and reduce their carbon footprint by using cellular networks to monitor HVAC equipment, giving them more control over power consumption. Some companies report that their networks can produce a 25% decrease in energy consumption and 75% decrease in wastewater. ⁽³⁾
- By mid-year 2022, 89% of global investors consider ESG as a component of their investment approach, according to a report published by Harvard Law School Forum on Corporate Governance. ⁽⁴⁾ As a result, CEOs around the world have become increasingly focused on reducing emissions. Private broadband could play an important role in supporting those objectives, especially in conjunction with data analytics technologies like edge computing.
- Further bolstering this trend is the FCC's 2020 ruling granting U.S. utilities access to more of the spectrum available for private wireless broadband. The change will allow utilities developing LTE networks to perform real-time monitoring and active control of their energy distribution systems, per Pixabay. ⁽⁵⁾ The benefits of the change have begun to be realized since the Wireless Telecommunications Bureau started accepting applications for the 900MHz segment in 2021, with the most recent grant in November '22 going out to nine applicants. ⁽⁶⁾

DISRUPTIVE POTENTIAL OF PRIVATE BROADBAND ACROSS A VARIETY OF SECTORS ⁽⁷⁾



Healthcare

The use cases for private networks in healthcare are endless. Expansive sites like hospitals can benefit from broader area coverage, increased speed and reliability, as well as improved security to protect sensitive patient information.



Agriculture

Farmers using real-time IoT devices delivered over private networking systems can expect to see remarkable increases in profitability. These benefits are derived primarily through the cost reductions and efficiency boosts associated with these IoT products.



Mining

The benefits of private broadband in mining operations are two-fold. First, mining relies on large amounts of data, which is more efficiently handled over a private network. Second, mining sites occupy large, often rural areas, which limits high-speed coverage using public broadband.



Transportation

Private networking limits interference in high-traffic areas like airports and train stations. Private networks also support the growing demand for high-speed data transfer necessary for advanced fleet monitoring and logistics.



Education

Schools turned to private networks to better serve rural students during the pandemic. While many schools have reinstated pre-pandemic norms, they will still benefit from the ease of deployment, reliability, and cost-effectiveness of private broadband.

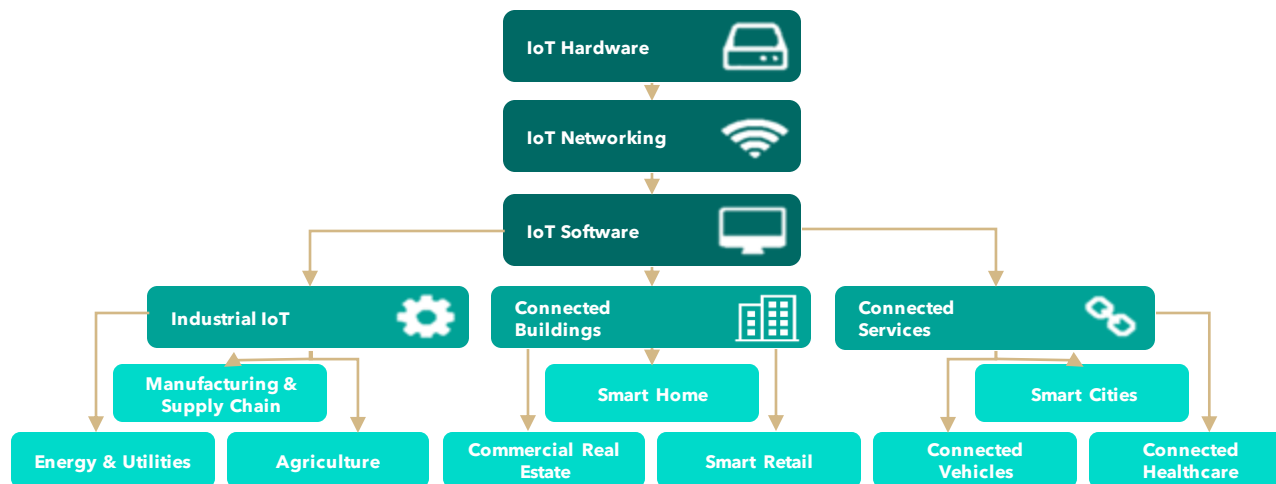
Sources: 1) Allied Market Research, 'Private LTE Market' (January 2021); 2) Mordor Intelligence, 'In-Building Wireless Market - Growth, Trends, Covid-19, Impact and Forecasts'; 3) Fierce Wireless, 'Private Networks Help Companies Go Green' (7/9/2021); 4) Harvard Law School Forum, 'ESG Global Study 2022' (June 2022); 5) Fierce Wireless, 'Private Networks to get a Boost from FCC Ruling on 900 MHz Band' (8/14/2020); 6) FCC, 'WTB Grants Nine Broadband Segment Applications' (November 2022); 7) Bling Networks, 'How Private LTE and CBRS will Revolutionize These 5 Sectors in 2021 and Beyond' (December 2020)6b



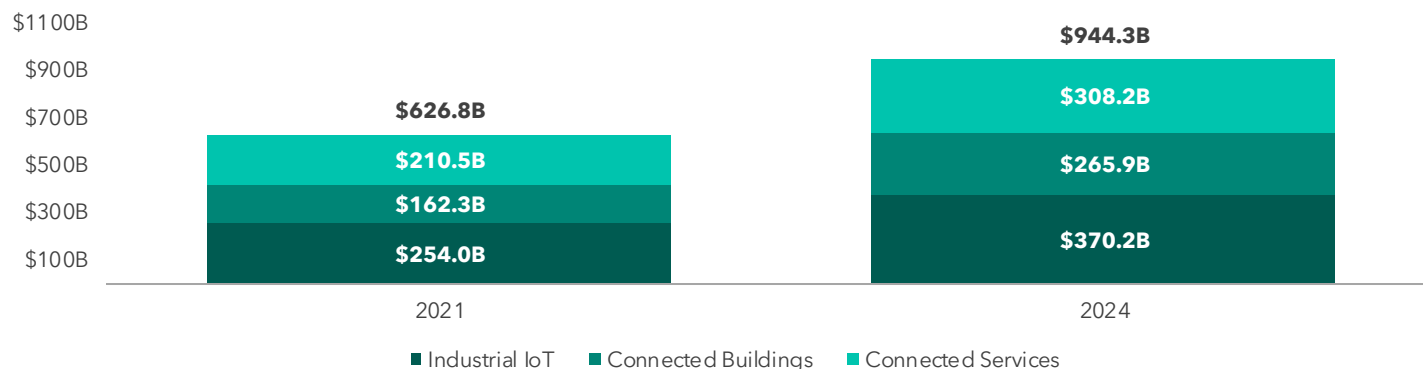
IoT Is Fueling Innovation Across The Data and Communications Landscape

- The Internet of Things (IoT) is a network of assets containing embedded technology to communicate, sense and interact with their internal states or external environment.
- IoT is a major enabling technology for radical digital change in many core industries; some examples include:
 - Machine connectivity and factory automation in manufacturing
 - Smart city connectivity (parking meters, traffic lights, etc.)
 - Physical security and surveillance in the smart home
 - Preventive patient monitoring in healthcare
- Actionable and real-time data being collected by interconnected IoT devices provides the potential to transform the above industries via increased analytical decision making.
- End market expansion is driving the global IoT market which is projected to grow from \$626.8 billion in 2021 to \$944.3 billion in 2024. ⁽¹⁾
- IoT is developing into a more mature market with attractive growth opportunities and several factors driving its growth:
 - The spread of mobile devices with advanced sensors has dramatically enhanced data collection and transmission efficiencies.
 - Powerful analytical tools including AI & ML are bolstering the value of IoT data through predictive inferencing.
 - Increasing speed of connectivity driven by expanding cloud infrastructure, edge computing and the continuous deployment (expanding reach) of 5G networks is making it easier to integrate IoT devices.
- VC activity has propelled the IoT market in recent years, although it cooled down in 2022. IoT companies raised \$15.1 billion in VC capital across 1,470 deals in 2022, a 29% decrease in deal value relative to 2021. ⁽²⁾

CURRENT STATE OF THE IOT VALUE CHAIN ⁽³⁾



IOT MARKET BY SEGMENT, 2021-2024, WORLDWIDE ⁽³⁾



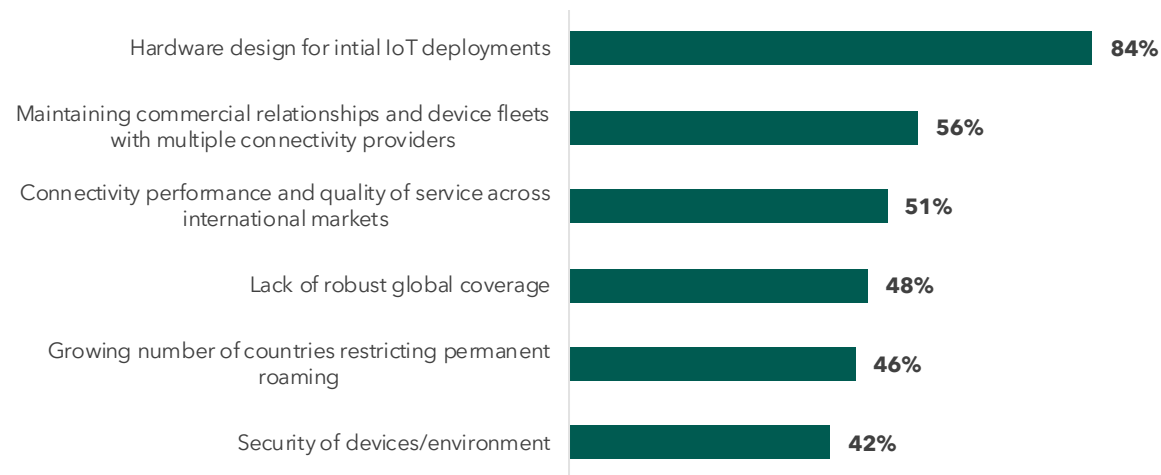
Sources: 1) Fortune Business Insights 'Internet of Things Market' (May 2021); 2) Pitchbook 'H2 2022 Internet of Things (IoT) Report' (February 2023); 3) Pitchbook 'Emerging Tech Research: Internet of Things (IoT) H2 2020' (March 2020)



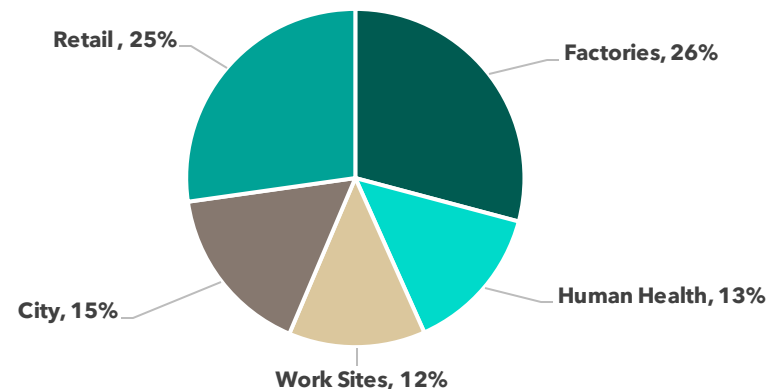
IoT Evolving Beyond Connectivity As Short-Term Headwinds Subside and Tech Leaps Forward

- **Slower-than-anticipated adoption:** Enterprise adoption of IoT has lagged behind expectation, as more than 97% of enterprises reported IoT projects to be <50% successful. Top challenges included hardware design (84%), managing commercial relationships with multiple service providers (56%), and poor connectivity across international markets (51%).⁽¹⁾ As a result – a majority of IoT project struggled to scale beyond pilot phase.
- **Advances in tech improving value proposition:** However, recent tech advances are bridging inherent scaling challenges:
 - **5G:** Rapid next-generation network deployment enables private networks, connectivity options (backbone of IoT) and performance.
 - **eSim & eUICC:** Improved security, removing barriers for multi-carrier and international mobility, and OTA provisioning for mobility.⁽²⁾
 - **Edge computing:** Critical infrastructure for service beyond connectivity, enabling layered software services and advanced analytics.
- **Short-term headwinds are starting to subside:**
 - **Supply chain constraints:** International wafer shortages are slowly easing, decreasing hardware-related deployment lags.
 - **Network sunsets:** 2G/3G carrier sunsets within the United States were expected to terminate by the end of 2022, alleviating the migration risk for IoT connectivity providers.⁽³⁾
- **Evolution beyond connectivity to vertical solutions and value-added services driving B2B adoption and ARPU growth:** Vendors are leveraging technology to ease deployment friction and improve value proposition through additive services.
 - **Vertical solutions:** Vertical-specific expertise among IoT connectivity providers is often the most important criteria for enterprises.⁽¹⁾ As the economic value for IoT is highly concentrated within select verticals, successful IoT vendors are developing vertical-specific solutions.
 - **IoT analytics:** Vertical solutions are empowered by greater analytics capabilities (which are enabled by the proliferation of edge compute); for example, remote blood-pressure monitoring and real-time MRI analysis within healthcare settings.
 - **Value-added services:** Expansion into value-added services beyond connectivity (including analytics, video, and vertical-specific applications) will drive higher ARPU after reductions from legacy network migrations.

HISTORIC CAPABILITY GAPS PREVENTING ENTERPRISE IOT ADOPTION ⁽¹⁾



ECONOMIC IMPACT OF IOT CONCENTRATED WITHIN KEY VERTICALS ⁽⁴⁾



Sources: 1) Computer Weekly.com, "Hardware and commercial flexibility issues slow down IoT adoption" (June 2022); 2) GSMA Intelligence - "eSim: State of the consumer market and the road ahead" (March 2021); 3) CTIA - "What to know about the sunsetting of 2G/3G Networks in Preparation for 5G"; 4) McKinsey & Company - "The Internet of Things: Catching up to an accelerating opportunity" (November 2021)



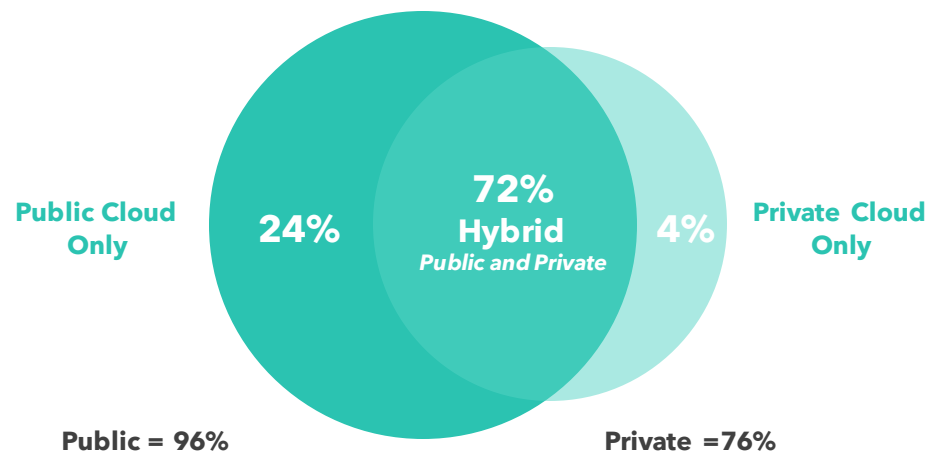
Enterprises Are Embracing Cloud Hybridization Strategies

- Hybrid-cloud models are implemented when enterprises utilize both public and private cloud infrastructure to host data and workloads. Hybrid strategies allow organizations to realize the power of public cloud computing along with the security and control of a private network.
- Most organizations are using hybrid cloud architecture to protect and control their data while still managing and analyzing it in a public cloud environment, alleviating some security concerns. Though, the overall percentage of organizations with a hybrid cloud decreased from 80% in 2022 to 72% in 2023 as public cloud only adoption continued to accelerate. As of 2023, the usage of multi-cloud security tools and cost management tools across all organizations was 30% and 29%, respectively. ⁽¹⁾
- The most common multi-cloud enterprise approach is a mix of multiple public and private clouds, providing a superior option to address the rapidly evolving cloud usage needs presented by the COVID-19 pandemic's impact on business. ⁽¹⁾
- Hybrid cloud strategy goes hand in hand with other core trends in enterprise networking:
- Software Defined Networking:** Software-defined data center technologies are becoming more widespread and allow server virtualization and containerization into software form, enabling multiple users to install and manage their own services on the same physical server.
- Co-Location:** A colocation data center is a physical facility that offers space with the proper power, cooling and security to host businesses' computing hardware and servers. This allows businesses to centralize their IT operations and create an efficient architecture that can reduce costs.
- Edge Computing:** By 2023, edge networks are projected to represent over 60% of all deployed cloud infrastructure. Workforce and operations practices fueled by COVID-19 provide an opportunity to continue to accelerate the delivery of infrastructure, application and data resources in edge locations. ⁽²⁾

Sources: 1) Flexera, '2023 State of the Cloud Report'; 2) The Linux Foundation, '2021 State of the Edge' (March 2021)

MULTI-CLOUD IS THE PREFERRED STRATEGY AMONG ENTERPRISES ⁽¹⁾

Breakdown of Types Clouds Used for all Organizations, % of all Respondents



#1 ENTERPRISE CLOUD PRIORITY IS MANAGING SPEND ⁽⁴⁾

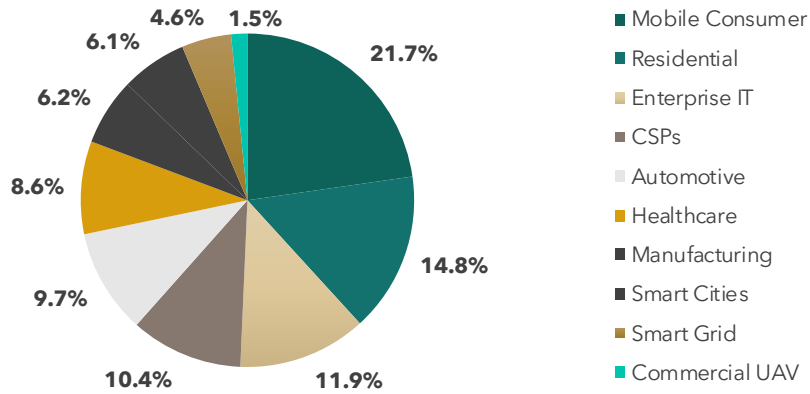
Top Cloud Priority for Enterprises Surveyed



Cloud Computing Is Moving To The Edge

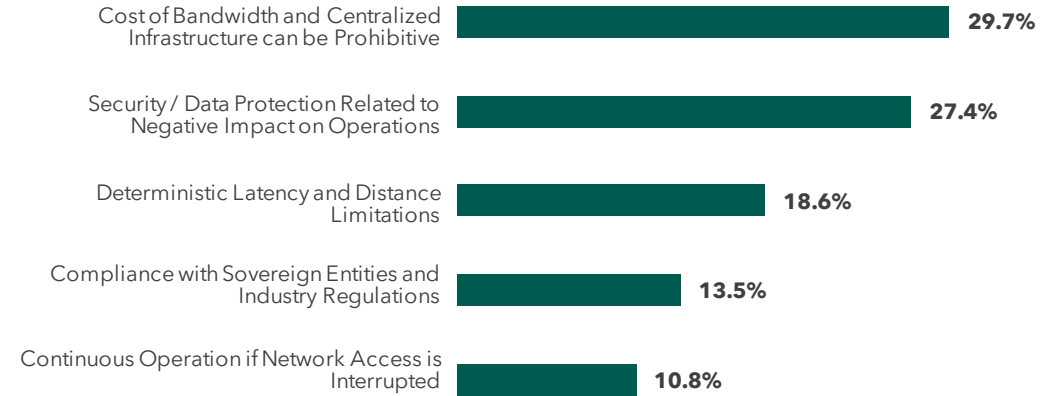
- Edge computing brings data and computations closer to the device, expanding the reach of core cloud networks and pushing key processing functions to the edge of the network, closer to where the data itself is gathered by endpoints such as PCs, phones, industrial sensors, connected cars, and wearables.
- The case for edge computing is rapidly increasing with 5G, AI/ML and IoT technologies converging to create the need for real-time computing at edge locations. Edge computing is faster, more scalable, and more reliable for critical IoT applications as opposed to traditional cloud computing which requires transferring data to a central server location that can be thousands of miles away.
- Edge computing enabling technologies are a major opportunity for emergent and existing IT stakeholders. IDC has identified over 150 use cases for edge computing, with the greatest investment dollars pouring into content delivery networks and virtual network functions. ⁽¹⁾
- Global edge computing spending is projected to reach \$274B by 2025, up from \$176B estimated in 2022, representing a 15.9% CAGR over the period. This boom is primarily driven by the exponential growth in data creation, capture, copy, and consumption expected over the next several years as well as the demand for low-latency processing, data protection and computing capabilities at reduced cost. Among a plethora of other use cases, edge computing adoption will spark monumental improvements in global security by enabling edge-based threat detection, data minimizations, and decentralized infrastructure. ⁽²⁾

BY 2028, THE GLOBAL INFRASTRUCTURE EDGE WILL SUPPORT 10 KEY APPLICATIONS ⁽⁴⁾



Sources: 1) IDC, *Worldwide Edge Spending Guide* (Jan 2022); 2) ReportLinker, *'Edge Computing Market with COVID-19 Impact - Global Forecast to 2026'* (Nov 2021); 3) Bond Capital, Mary Meeker *'Internet Trends 2019'* (May 2019); 4) The Linux Foundation, *'State of the Edge 2021'* (Mar 2021); 5) IDC, *'Edge Computing Solutions Powering the Fourth Industrial Revolution'* (Jan 2021)

PRIMARY MOTIVATIONS DRIVING EDGE COMPUTING INVESTMENT ^(4,5)



DATA PROPAGATION IS EXPANDING FROM ENDPOINTS TO CORE AND BACK ⁽³⁾



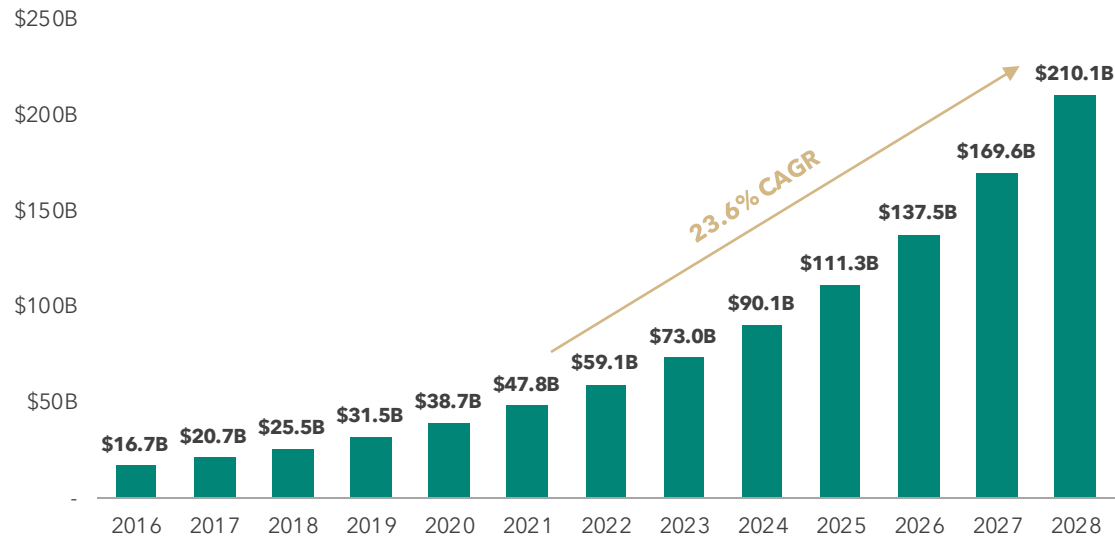


UCaaS Is Seamlessly Connecting Workforces That Are More Widely Distributed Than Ever

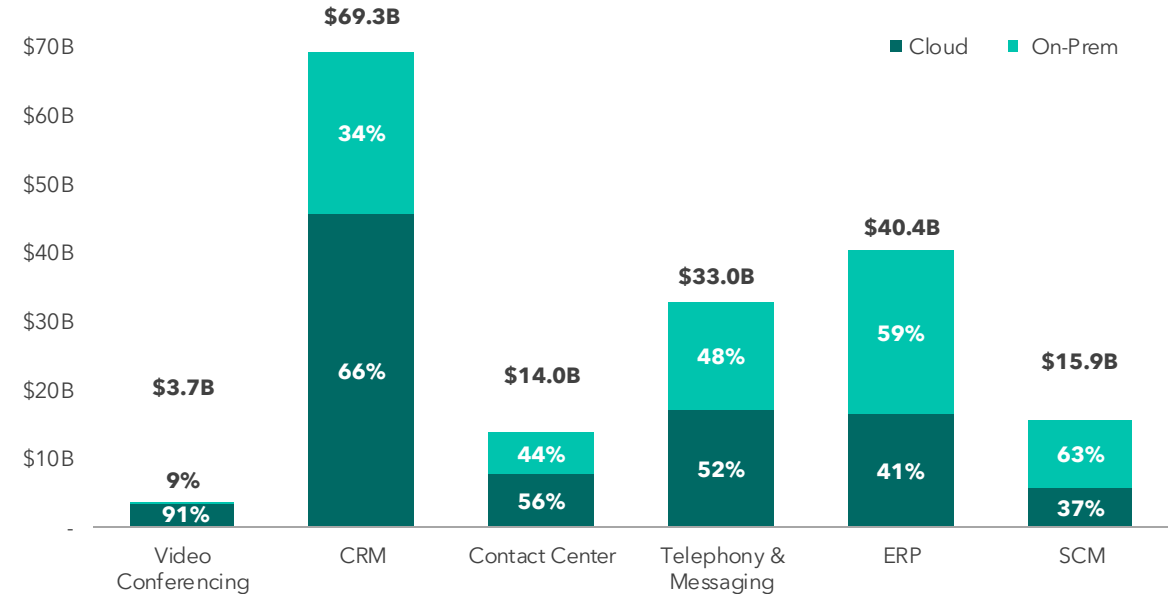
- Unified Communications as a Services (UCaaS) is the modern as-a-service model of the traditional unified communications concept, which includes critical business communication functions such as voice and telephony, video and audio conferencing, real-time messaging and presence.
- The traditional unified communications model requires businesses to acquire, install, manage and update onsite infrastructure to facilitate local and long-range business communication. UCaaS is alternatively hosted by a provider, making disruptive, leading edge communications technologies more accessible to businesses of all sizes by avoiding the initial expenses often associated with setting up an advanced communications strategy.
- Adoption of cloud-based UCaaS solutions remains in the low single digits, with the alternative solutions of on-premises accounting for an estimated 97% of the market. This is primarily attributable to the hurdles associated with transferring historically hardware-centric systems coupled with the security, availability, and cost concerns of enterprises. ⁽⁵⁾ COVID-19 served as a catalyst for cloud adoption, driving companies to allocate spend away from physical infrastructure and accelerating the shift towards hosted UCaaS solutions, enabling distributed workforces to seamlessly communicate in more flexible and agile ways.
- U.S. businesses lose \$1.2 trillion per year as a result of poor communication. ⁽¹⁾
- Digital transformation is a top business imperative for most companies, considering 60% of surveyed CIOs reported significant budgeted investment in 2022. C-level executives were optimistic that spending increases would double their return on digital investments in 2022 compared to 2021. ^(2,3)

THE LARGE UCaaS MARKET IS EXPERIENCING RAPID GROWTH (4)

UCaaS Market Size (Billions of U.S. Dollars)



CY20 ENTERPRISE & COMMUNICATIONS SOFTWARE END-USER SPEND (5)



Sources: 1) Grammarly, 'The State of Business Communication' (January 2022); Harris Poll; 2) PwC, Pulse Survey (January 2022); 3) EY, 'Digital Investment Index (DII) Report' (April 2022); 4) Grand View Research, 'Unified Communication As A Service Market Size, Share & Trends Analysis Report By Deployment (Public Cloud, Private Cloud), By Industry Vertical, By Region, And Segment Forecasts, 2021 - 2028' (March 2021); 5) UBS Global Research, 'The Future of Communications as a Service' (5/26/2021)

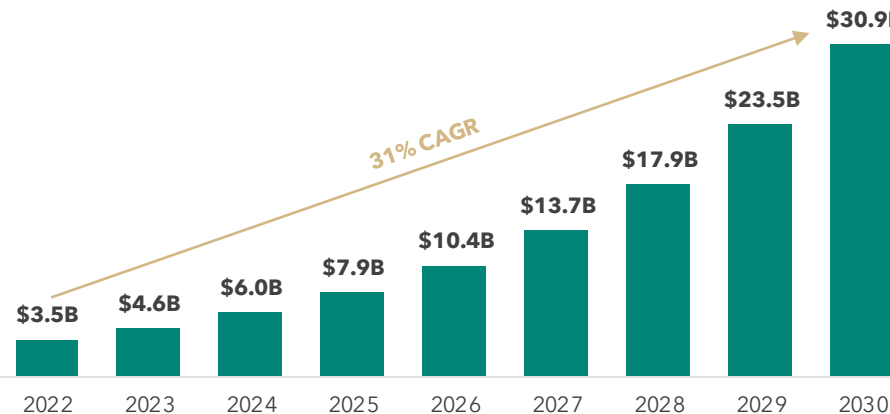


SD-WAN Is Bringing Principals Of The Cloud To Network Management

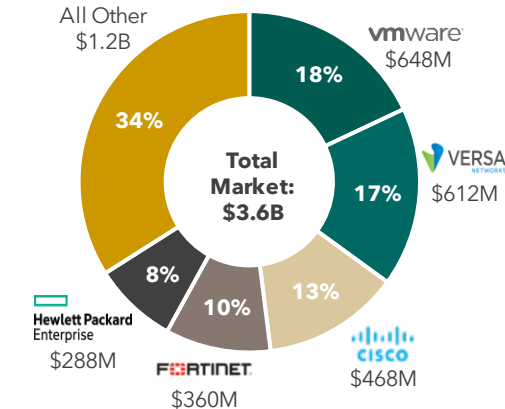
SD-WAN MARKET IS LARGE & RAPIDLY EXPANDING, AMPLE MARKET SHARE REMAINS (2, 4)

- SD-WAN (software-defined wide area network), is a software approach to managing wide area networks (WANs) to offer ease of deployment, central manageability, reduced costs, and improved connectivity to branch offices and the cloud. SD-WANs are programmatically configured and managed so they can effectively and affordably meet changing business needs.
- Enterprise adoption of SD-WAN technologies is rapidly accelerating to keep pace with the large shifts towards consumption of cloud-based applications "at the edge".
 - The growing demand for remote worker access as a result of COVID-19 has driven a move away from remote VPN and towards SD-WAN solutions.
 - SD-WAN traffic was expected to account for 29% of WAN traffic in 2022 and grow at a 37% CAGR going forward. (1)
 - The SD-WAN market size totaled over \$3.5 billion in 2022 and is expected to reach \$30.9 billion by 2030, representing a CAGR of 31.2% over the forecast period. (2)
 - By 2025, to deliver flexible, cost-effective scalable bandwidth, 40% of enterprise locations will have only internet WAN connectivity, compared with 15% in 2021. (3)
 - Many enterprise networking incumbents are attempting to gain a foothold or leadership position in the large and crowded SD-WAN market. As a result, there has been rapid vendor consolidation in the space with 20+ acquisitions in the past eight years by large strategic providers. While much of the market is still up for grabs, VMWare, Versa Networks, and Cisco have strong leadership within the worldwide SD-WAN market.

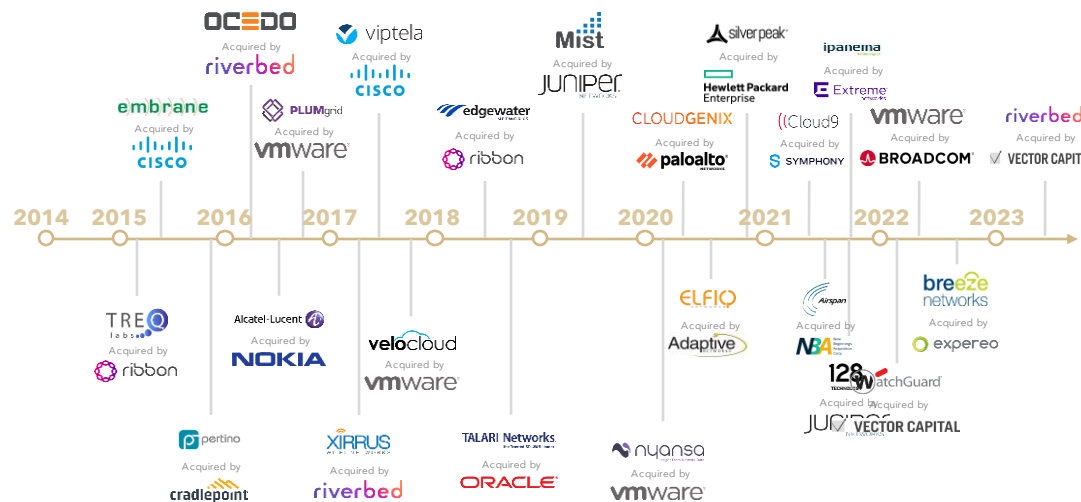
SD-WAN Market Size Forecast



Estimated SD-WAN Market Share



ENTERPRISE NETWORKING INCUMBENTS ARE BUYING SHARE IN THE SD-WAN MARKET



Sources: 1) Qualcomm, 'Everything you need to know about 5G'; 2) IDTechEx, '5G Technology, Market and Forecasts 2020-2030' (1/12/2021); 3) S&P Global Market Intelligence (2/24/2022); 4) 5G Americas, 'Exploding 5G Adoption Continues Around The World' (December 2022)

SECTION 03

Cloud Infrastructure and Communications Valuation Environment



Communications Technology Market Landscape

Networking & Communications Equipment

Constituents: 29
Combined Market Cap: \$1,002B

Communications Technology Distributors

Constituents: 11
Combined Market Cap: \$77B

Diversified Communications

Constituents: 12
Combined Market Cap: \$733B

Networking Systems Software and Services

Constituents: 8
Combined Market Cap: \$204B

Core Cloud Infrastructure Technology

Constituents: 8
Combined Market Cap: \$124B

Data Center and Wireless Infrastructure

Constituents: 6
Combined Market Cap: \$297B

Unified Communications

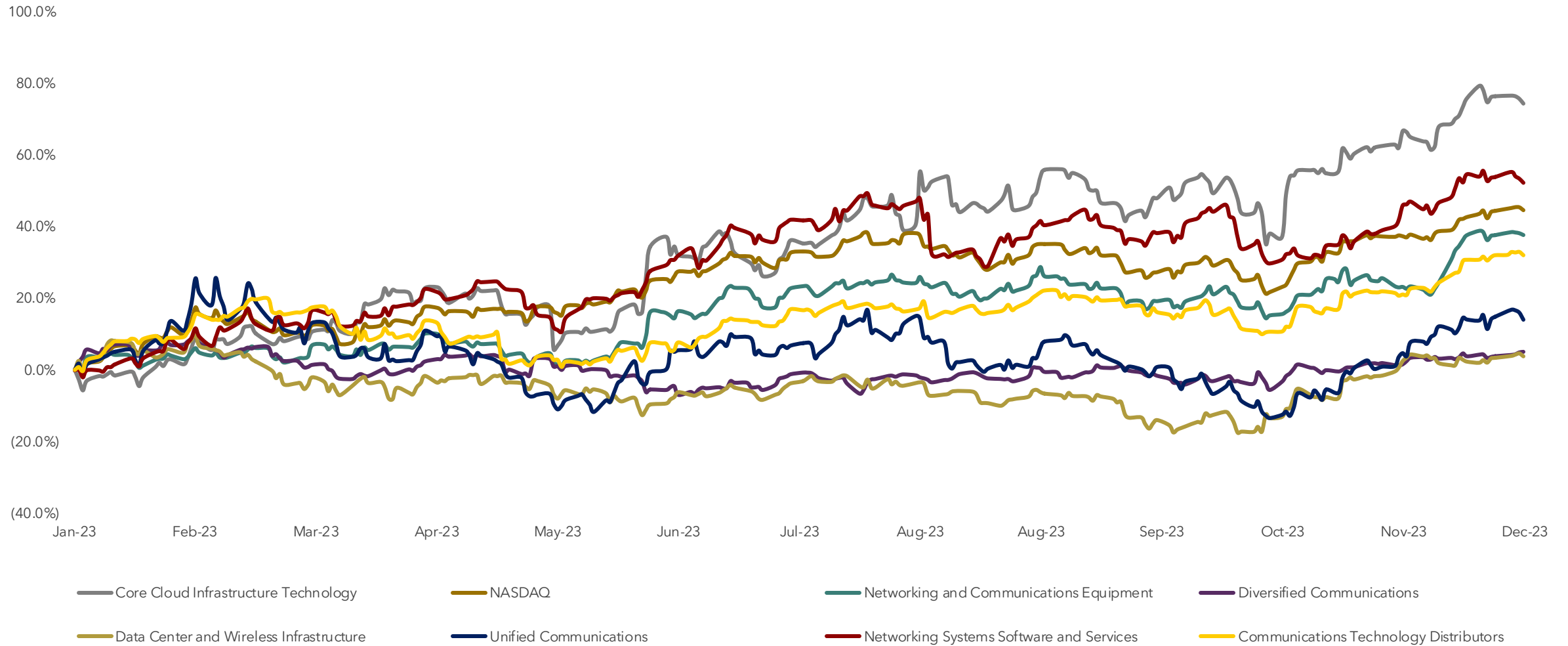
Constituents: 8
Combined Market Cap: \$49B

Source: S&P CapitalIQ as of close on 12/31/23
 (1) Hewlett Packard Enterprise to buy Juniper Networks (01/10/24)
 (2) Limelight Networks has rebranded to Edgio following its acquisition of Yahoo Edgecast



Cloud Infrastructure and Communications Public Market Performance

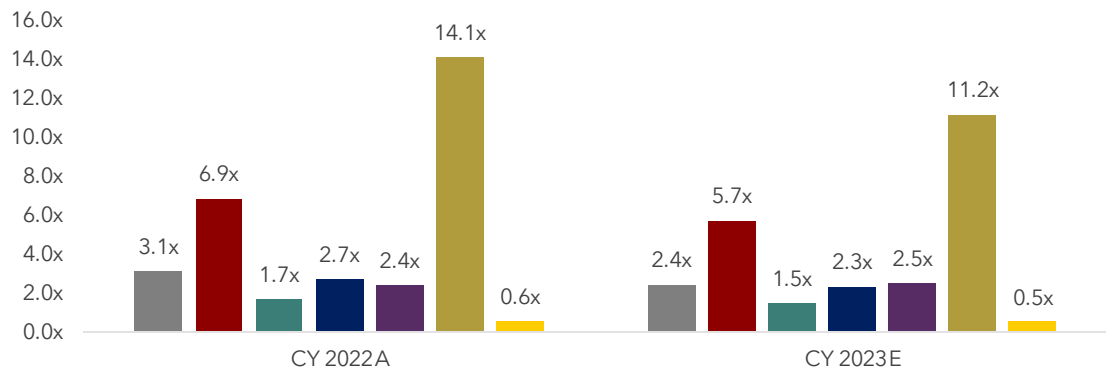
RELATIVE INDEX PERFORMANCE ⁽¹⁾



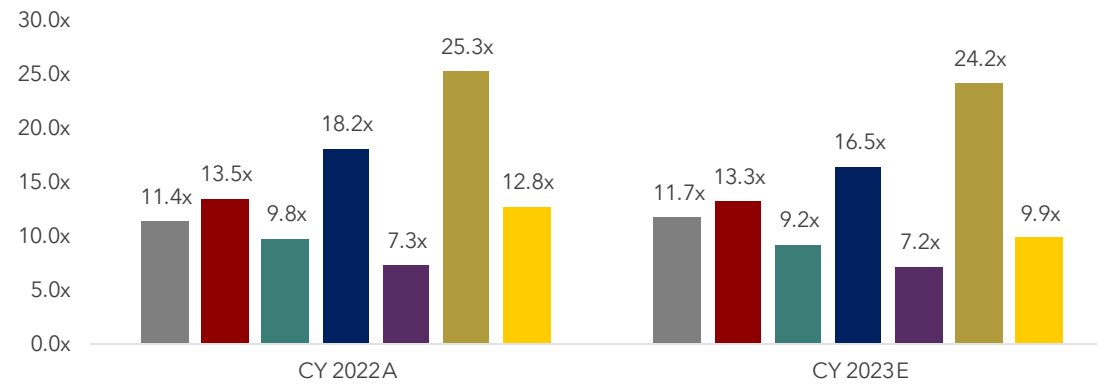
Source: S&P CapitalIQ as of close on 12/31/23
 Market value weighted index for each sector as noted in public trading comparables detail

Relative Valuation and Trading Detail By Sector

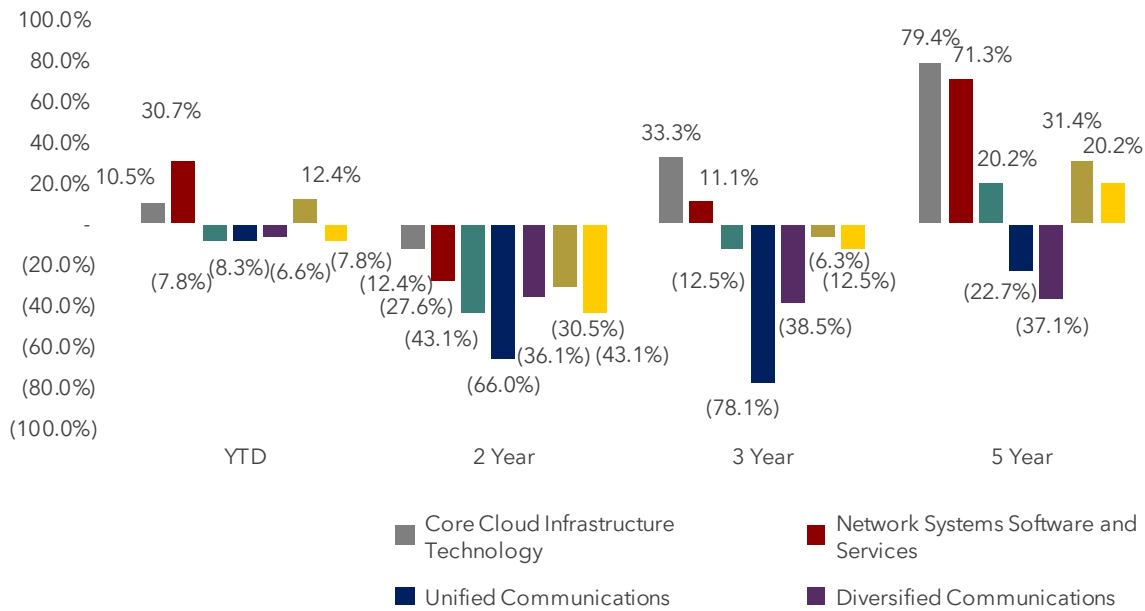
VALUATION MULTIPLES: EV / REVENUE⁽¹⁾



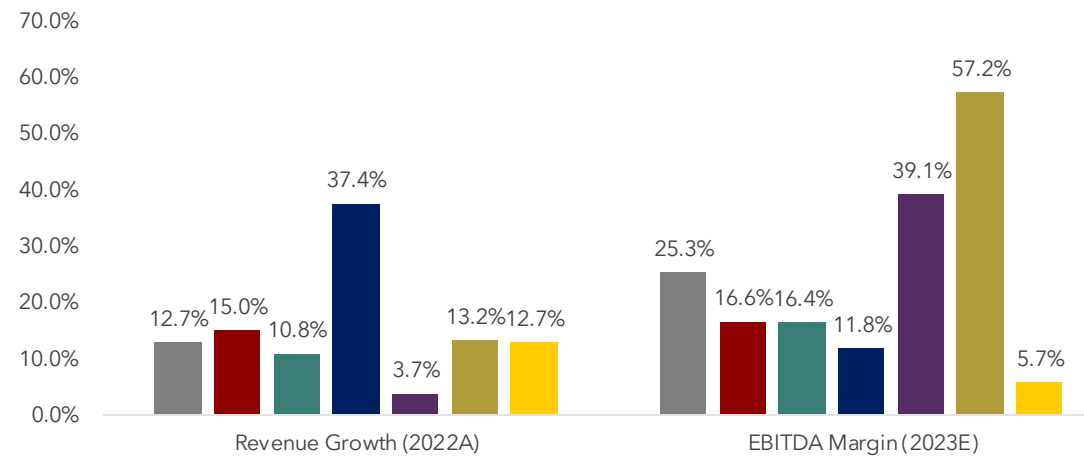
VALUATION MULTIPLES: EV / EBITDA⁽¹⁾



RELATIVE STOCK PRICE PERFORMANCE⁽¹⁾



GROWTH AND MARGIN CONSENSUS ESTIMATES⁽¹⁾



Source: S&P CapitalIQ as of close on 12/31/23
Represents median for each sector



Public Company Trading Details, Cont'd

(USD in millions, except per share data)

Company	Share Price	Capitalization		Share Price Performance				Price / Earnings		EV / Revenue		EV / EBITDA		Revenue		Revenue Growth		Gross Margin		EBITDA Margin	
		Equity Value	Enterprise Value	YTD	2 Year	3 Year	5 Year	2022A	2023E	2022A	2023E	2022A	2023E	2022A	2023E	2022A	2023E	2022A	2023E	2022A	2023E
Unified Communications																					
8x8, Inc. (EGHT)	\$3.78	\$462	\$857	(12.5%)	(77.4%)	(89.0%)	(79.0%)	NM	7.9x	1.4x	1.2x	NM	19.3x	\$601	\$740	18.1%	23.0%	NA	NA	2.9%	6.0%
Bandwidth Inc. (BAND)	14.47	371	877	(36.9%)	(79.8%)	(90.6%)	(64.5%)	NM	9.8x	1.8x	1.5x	18.2x	26.4x	\$491	\$590	43.1%	20.1%	48.4%	48.1%	9.8%	5.6%
Five9, Inc. (FIVN)	78.69	5,720	5,816	16.0%	(42.7%)	(54.9%)	80.0%	NM	NM	9.5x	6.4x	NM	NM	\$610	\$909	40.2%	49.1%	63.2%	59.7%	17.5%	14.8%
Ooma, Inc. (OOMA)	10.73	277	293	(21.2%)	(47.5%)	(25.5%)	(22.7%)	NM	16.9x	1.5x	1.2x	19.8x	17.6x	\$192	\$237	13.8%	23.0%	61.8%	64.1%	7.7%	7.0%
RingCentral, Inc. (RNG)	33.95	3,183	4,790	(4.1%)	(81.9%)	(91.0%)	(58.8%)	NM	9.7x	3.0x	2.2x	21.7x	15.4x	\$1,595	\$2,201	34.7%	38.0%	77.4%	78.0%	13.8%	14.1%
Twilio Inc. (TWLO)	75.87	13,736	11,073	55.0%	(71.2%)	(77.6%)	(15.0%)	NM	30.8x	3.9x	2.7x	NM	NM	\$2,842	\$4,115	61.3%	44.8%	54.1%	51.1%	8.7%	5.6%
Ziff Davis, Inc. (ZD)	67.19	3,090	3,400	(15.1%)	(39.4%)	(31.2%)	(3.2%)	6.2x	9.9x	2.4x	2.5x	7.0x	6.7x	\$1,417	\$1,373	22.3%	(3.1%)	85.2%	86.2%	34.4%	36.8%
Zoom Video Communications, Inc. (ZM)	71.91	21,891	15,476	6.2%	(60.9%)	(78.7%)	NA	15.5x	15.5x	3.8x	3.4x	9.4x	9.8x	\$4,100	\$4,510	54.6%	10.0%	74.9%	78.5%	40.2%	34.9%
Median				(8.3%)	(66.0%)	(78.1%)	(22.7%)	10.9x	9.9x	2.7x	2.3x	18.2x	16.5x	\$1,013	\$1,141	37.4%	23.0%	63.2%	64.1%	11.8%	10.6%
Diversified Communications																					
Alice USA, Inc. (ATUS)	\$3.25	\$1,478	\$2,582	(29.3%)	(79.9%)	(91.4%)	(80.3%)	1.5x	9.3x	2.6x	NA	6.0x	6.8x	\$10,091	\$9,227	2.0%	(8.6%)	66.5%	59.9%	43.8%	42.3%
AT&T Inc. (T)	16.78	119,977	291,074	(8.9%)	(31.8%)	(41.7%)	(41.2%)	6.1x	6.8x	2.2x	2.4x	5.6x	7.0x	\$134,038	\$121,912	(6.3%)	(9.0%)	57.1%	60.0%	38.8%	34.2%
ATN International, Inc. (ATNI)	38.97	591	1,363	(14.0%)	(2.5%)	(6.7%)	(4.6%)	NM	NM	2.3x	1.8x	10.6x	8.2x	\$756	\$603	32.3%	25.4%	NA	NA	21.3%	22.0%
Cable One, Inc. (CABO)	556.59	3,126	6,585	(21.8%)	(68.4%)	(75.0%)	(32.1%)	11.5x	10.7x	4.1x	3.9x	7.8x	7.3x	\$1,606	\$1,684	21.2%	4.9%	72.1%	72.1%	52.5%	53.9%
Charter Communications, Inc. (CHTR)	388.68	57,494	158,659	14.6%	(40.4%)	(41.2%)	3.6%	15.3x	10.3x	3.1x	2.9x	7.7x	7.3x	\$51,682	\$54,616	7.5%	5.7%	61.9%	62.4%	39.7%	39.6%
Cogent Communications Holdings, Inc. (CCOI)	76.06	3,586	5,361	33.3%	3.9%	27.0%	68.2%	NM	NM	9.4x	5.7x	23.3x	23.0x	\$571	\$938	3.3%	64.2%	62.1%	61.9%	40.2%	24.9%
Comcast Corporation (CMCSA)	43.85	176,500	273,336	25.4%	(12.9%)	(16.3%)	14.2x	10.3x	2.3x	2.3x	7.9x	7.4x	\$116,385	\$120,707	12.4%	3.7%	63.2%	63.5%	29.7%	30.5%	
Consolidated Communications Holdings, Inc. (CNLS)	4.35	507	2,931	21.5%	(41.8%)	(11.0%)	(56.0%)	NM	NM	2.3x	2.6x	5.8x	7.2x	\$1,282	\$1,114	(1.7%)	(13.1%)	55.5%	53.9%	39.3%	36.6%
Lumen Technologies, Inc. (LUMN)	1.83	1,846	21,726	(64.9%)	(85.4%)	(81.2%)	(88%)	1.0x	NM	1.1x	1.5x	2.6x	3.2x	\$19,687	\$14,499	(4.9%)	(26.4%)	56.9%	55.6%	42.8%	47.0%
T-Mobile US, Inc. (TMUS)	160.33	185,418	294,286	14.5%	38.2%	18.9%	152.1%	NM	15.4x	3.7x	3.8x	10.9x	10.8x	\$80,118	\$77,785	17.1%	(2.9%)	55.2%	54.2%	33.7%	35.1%
Verizon Communications Inc. (VZ)	37.70	158,495	333,606	(4.3%)	(27.4%)	(35.8%)	(3.3%)	7.1x	8.2x	2.5x	2.5x	6.9x	7.0x	\$133,613	\$133,520	4.1%	(0.1%)	58.3%	57.0%	36.2%	35.9%
Vodafone Group Public Limited Company (VOD)	0.87	23,647	84,838	(14.0%)	(42.5%)	(47.1%)	(55.2%)	21.8x	9.1x	1.6x	1.9x	5.0x	5.2x	\$51,434	\$44,674	(4.7%)	(13.1%)	NA	NA	32.8%	36.3%
Median				(6.6%)	(36.1%)	(38.5%)	(37.1%)	9.3x	9.8x	2.4x	2.5x	7.3x	7.2x	\$35,560	\$29,586	3.7%	(1.5%)	60.1%	60.0%	39.1%	36.1%
Data Center and Wireless Infrastructure																					
American Tower Corporation (AMT)	215.88	100,636	152,034	1.9%	(26.2%)	(3.8%)	36%	NM	NM	16.2x	13.7x	25.4x	23.0x	\$9,357	\$11,096	16.4%	18.6%	71.5%	69.3%	63.9%	59.5%
Crown Castle Inc. (CCI)	115.19	49,957	78,569	(15.1%)	(44.8%)	(27.6%)	6.0%	NM	NM	12.4x	11.3x	20.7x	18.1x	\$6,340	\$6,960	8.6%	9.8%	68.6%	70.5%	60.0%	62.3%
DigitalBridge Group, Inc. (DBRG)	17.54	2,866	7,769	60.3%	(47.4%)	(8.8%)	(6%)	NM	NM	6.6x	11.1x	24.7x	24.8x	\$1,182	\$701	194.4%	(40.7%)	NA	NA	26.6%	44.7%
Digital Realty Trust, Inc. (DLR)	134.58	40,758	60,601	34.2%	(23.9%)	(3.5%)	26.3%	22.6x	NM	13.7x	11.0x	25.1x	24.7x	\$4,426	\$5,505	15.1%	24.4%	59.9%	57.1%	54.5%	44.6%
Equinix, Inc. (EQIX)	805.39	75,613	90,661	23.0%	(4.8%)	12.8%	128%	NM	NM	14.5x	11.1x	28.9x	26.9x	\$6,260	\$8,188	11.3%	30.8%	66.6%	66.3%	50.1%	41.1%
SBA Communications Corporation (SBAC)	253.69	27,370	41,981	(9.5%)	(34.8%)	(10.1%)	56.7%	NM	NM	18.2x	15.4x	26.1x	23.7x	\$2,309	\$2,718	10.8%	17.7%	76.3%	74.5%	69.6%	65.1%
Median				12.4%	(30.5%)	(6.3%)	31.4%	22.6x	NA	14.1x	11.2x	25.3x	24.2x	\$5,343	\$6,233	13.2%	18.2%	68.6%	69.3%	57.2%	52.1%
Communications Technology Distributors																					
Arrow Electronics, Inc. (ARW)	\$122.25	\$6,621	\$10,560	16.9%	(9.0%)	25.6%	77.3%	8.0x	8.3x	0.3x	0.3x	6.2x	4.6x	\$34,477	\$33,080	20.2%	(4.1%)	12.0%	13.0%	5.0%	6.9%
Avnet, Inc. (AVT)	50.40	4,560	7,693	21.2%	22.2%	43.5%	39.6%	11.0x	8.5x	0.4x	0.3x	11.2x	6.2x	\$21,593	\$25,006	20.9%	15.8%	NA	NA	3.2%	5.0%
CDW Corporation (CDW)	227.32	30,452	36,501	27.3%	11.0%	72.5%	180.5%	31.8x	21.5x	1.8x	1.7x	21.1x	16.6x	\$20,821	\$21,684	12.7%	4.1%	17.1%	19.2%	8.3%	10.1%
Computacenter plc (CCC)	35.56	4,022	3,821	54.5%	(9.7%)	6.4%	177.4%	16.0x	20.0x	0.6x	0.5x	8.3x	8.9x	\$6,817	\$7,432	(8.2%)	9.0%	13.2%	15.4%	6.7%	5.8%
Datatec Limited (DTC)	2.21	503	744	21.4%	(8.2%)	32.2%	16.4%	20.1x	8.5x	0.2x	0.1x	NA	NA	\$4,332	\$5,430	6.4%	25.3%	NA	NA	NA	NA
ePlus inc. (PLUS)	79.84	2,125	2,265	80.3%	48.2%	81.6%	124.4%	22.0x	14.8x	1.3x	1.1x	14.4x	13.3x	\$1,722	\$2,123	8.8%	23.3%	NA	NA	9.1%	8.0%
Insight Enterprises, Inc. (NSIT)	177.19	5,772	6,470	76.7%	66.2%	132.9%	334.8%	28.3x	15.6x	0.7x	0.7x	(1.2%)	13.3x	\$9,436	\$9,320	13.1%	(1.2%)	15.4%	15.5%	4.2%	5.2%
PC Connection, Inc. (CNXN)	67.21	1,766	1,482	43.3%	55.8%	42.1%	126.1%	25.2x	19.7x	0.5x	0.5x	14.6x	10.8x	\$2,893	\$2,829	11.7%	(2.2%)	16.1%	16.8%	3.5%	4.9%
Rexel S.A. (RXL)	27.38	8,255	11,716	38.9%	35.0%	73.6%	157.1%	12.2x	10.2x	0.7x	0.6x	9.0x	6.6x	\$16,707	\$19,143	8.5%	14.6%	25.4%	25.5%	7.8%	9.3%
Synnex Technology International Corporation (2347)	2.29	3,822	4,927	18.9%	(4.1%)	37.0%	92.7%	6.1x	4.0x	0.3x	0.0x	13.3x	16.7x	\$14,752	\$384,292	24.0%	2505.1%	4.4%	4.0%	2.5%	0.1%
WESCO International, Inc. (WCCC)	173.88	8,881	14,212	38.9%	32.1%	121.5%	262.3%	21.4x	10.2x	0.8x	0.6x	12.2x	8.4x	\$18,218	\$22,500	47.8%	23.5%	20.9%	21.7%	6.4%	7.5%
Median				38.9%	22.2%	43.5%	126.1%	20.1x	10.2x	0.6x	0.5x	12.8x	9.9x	\$9,436	\$9,320	14.6%	15.7%	16.1%	16.1%	5.7%	6.3%

SECTION 04

Recent Cloud Infrastructure and Communications Transaction Activity





Notable 2023 Cloud Infrastructure and Communications Transactions

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Dec 2023	MasterStream ERP	Connectbase	Networking Systems Software and Services	Developer of configure price quote software solutions catering to the telecom industry	M&A	NA	NA	NA
Dec 2023	CMC Networks	center3	Networking Systems Software and Services	Provider of managed end-to-end connectivity services intended for global telecom providers	M&A	NA	NA	NA
Dec 2023	DQE Communications	GI PARTNERS	Unified Communications	Provider of fiber-optic internet and data network access services intended for businesses and carriers	M&A	NA	NA	NA
Dec 2023	gta	Stonepeak	Networking Systems Software and Services	Provider of telecommunications services based in Tamuning, Guam	Capital Raise	NA	NA	NA
Dec 2023	VIATEL	MACQUARIE	Data Center and Wireless Infrastructure	Provider of advanced voice, data connectivity, data center and managed WAN services in Ireland	Capital Raise	NA	NA	NA
Dec 2023	MERO Networks	MACQUARIE FREEDOM MILLS WAVE DIVISION	Diversified Communications	Provider of bulk internet services intended for multi-dwelling units ("MDUs") in the United States	Capital Raise	NA	NA	NA
Nov 2023	EDGEX Data Centers	TONAQUINT	Data Center and Wireless Infrastructure	Operator of data centers intended to serve businesses	M&A	NA	NA	NA
Nov 2023	GYRO CENTRE	nlighten	Data Center and Wireless Infrastructure	Operator of a data center based in Amsterdam, Netherlands	M&A	NA	NA	NA
Nov 2023	vmware	BROADCOM	Networking Systems Software and Services	Virtualizing IT infrastructure with solutions that are used across IT infrastructure, application development, and cybersecurity teams	M&A	\$69,210	5.1x	19.9x
Nov 2023	UltraEdge	Morgan Stanley	Data Center and Wireless Infrastructure	Operator of a chain of data centers intended for corporate clients and other telecommunications operators in France	M&A	\$818	NA	29.3x
Nov 2023	Globalways	zayo	Networking Systems Software and Services	Provider of high-speed internet connectivity services intended for the companies in the Stuttgart region	M&A	NA	NA	NA
Nov 2023	edzcom	boldyn	Unified Communications	Provider of private wireless networks for industrial clients like manufacturing, ports, oil and gas, energy generation and mining	M&A	NA	NA	NA
Nov 2023	Lightcurve	PALISADE	Diversified Communications	Provider of internet, television and phone services	M&A	NA	NA	NA
Nov 2023	Cyxtera	Brookfield Digital Realty	Data Center and Wireless Infrastructure	Engaged in data center colocation and interconnection services	M&A	\$1,300	NA	NA
Nov 2023	CENTRAK	ADIA	Networking & Communications Equipment	Operator of a ground lease acquisition company intended for the development and management of the real estate and infrastructure	Capital Raise	NA	NA	NA
Oct 2023	MAINSTREAM Fiber Networks	SEARCHLIGHT	Networking Systems Software and Services	Provider of fiber optic internet services intended to offer reliable internet to customers and communities	Capital Raise	NA	NA	NA
Oct 2023	NEWBRIDGE OPTICALS	TERRAMONT INFRASTRUCTURE PARTNERS	Networking & Communications Equipment	Leading provider of mission-critical wireless infrastructure solutions	Capital Raise	NA	NA	NA
Oct 2023	HORIZON	SHENTEL	Networking & Communications Equipment	Provider of advanced broadband infrastructure services	M&A	\$385	NA	NA
Oct 2023	swyft	MACQUARIE	Networking Systems Software and Services	Provider of fiber internet connectivity services located in Milan, Tennessee	M&A	\$275	NA	NA

Source: S&P Capital IQ; PitchBook; Telecom Ramblings
Based on date announced or closed



Notable 2023 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Oct 2023			Networking & Communications Equipment	Developer and operator of passive fiber optic networks for cities and communities	M&A	NA	NA	NA
Oct 2023	 <small>(Content Delivery, Network, Customer Contracts)</small>		Networking Systems Software and Services	Portfolio of select content delivery network customer contracts	M&A	NA	NA	NA
Oct 2023			Networking Systems Software and Services	Provider of mechanical and electrical design engineering consultancy services intended for mission-critical facilities	M&A	NA	NA	NA
Oct 2023			Networking & Communications Equipment	Provider of mission-critical infrastructure services intended to serve regions in the US and Europe	M&A	NA	NA	NA
Oct 2023			Data Centers and Colocation	Provider of structured cabling and data center relocation services	M&A	NA	NA	NA
Oct 2023			Unified Communications	Provider of a broad set of telecommunications services	M&A	NA	NA	NA
Oct 2023			Networking Systems Software and Services	Developer of cloud communications software designed to make it easy for businesses to connect and communicate	M&A	NA	NA	NA
Sep 2023			Diversified Communications	Provider of telecommunication and internet services focused on multi-tenant accommodations	M&A	NA	NA	NA
Sep 2023			Data Centers and Colocation	Provider of data center services designed to support applications and services by reducing latency and IP transit costs	M&A	NA	NA	NA
Aug 2023			Networking & Communications Equipment	Provider of open-access fiber and wireless network for the telecommunications industry	M&A	NA	NA	NA
Aug 2023			Networking & Communications Equipment	Developer of a telecommunication platform intended to bring the internet ecosystem dynamics closer to the telecom industry	M&A	\$150	NA	NA
Jul 2023			Networking & Communications Equipment	Developer of a long-range radio network designed to speed up development and reduce the costs of new IoT services	M&A	NA	NA	NA
Jul 2023			Unified Communications	Cloud Communication Platform provider, catering to enterprises, over-the-top (OTT) players, and mobile network operators (MNO)	M&A	\$1,252	2.8x	22.4x
Jul 2023			Communications Equipment (Primary)	Value-added technology distributor, manufacturer, and solutions provider	Take-Private	\$161	0.4x	91.5x
Jul 2023			Networking Systems Software and Services	Provider of technology-managed services intended to serve varied businesses	M&A	NA	NA	NA
Jul 2023			Unified Communications	Mobile communication services for financial institutions, e-commerce players, OTTs, software companies, logistic enablers, etc.	M&A	\$49	0.1x	NA
Jul 2023			Networking Systems Software and Services	Provider of telecommunications and networking services intended to meet the communication needs of business organizations	M&A	NA	NA	NA
Jul 2023			Networking Systems Software and Services	Provider of connectivity and telecom services	M&A	NA	NA	NA



Notable 2023 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Jul 2023	EdgePresence	ubiunity	Data Centers and Colocation	Operator of multi-tenant, modular data centers intended to provide space, power, bandwidth, and interconnection	M&A	NA	NA	NA
Jul 2023	MKT HOLDINGS	ARDIAN	Networking & Communications Equipment	Operator of an investment platform to develop, acquire, own, and operate neutral-host communication infrastructure assets	M&A	NA	NA	NA
Jun 2023	COMPASS	Brookfield Infrastructure Partners	Data Centers and Colocation	Developer of data-centers designed to support software as service (SaaS) providers, cloud computing and service provider customers	M&A	NA	NA	NA
Jun 2023	LITTEL	EXA	Communications Equipment (Primary)	Provider of infrastructure services catering to the telecommunications sector	M&A	NA	NA	NA
Jun 2023	bridgewired	Cincinnati Bell	Networking & Communications Equipment	Fiber Assets of Bridgewired comprise the broadband infrastructure assets. The asset is located in the United States	M&A	NA	NA	NA
May 2023	LTEVA	archtopfiber	Networking Systems Software and Services	Provides communication services to residential and business customers in the United States	M&A	NA	NA	NA
May 2023	serverfarm	Manulife Investment Management	Data Centers and Colocation	Provider of sustainable data center management and modernization, enabling businesses to gain control over their critical IT infrastructure	M&A	NA	NA	NA
May 2023	lifesize	Enghouse Systems	Unified Communications	Developer of cloud-based video collaboration and meeting productivity solutions	M&A	NA	NA	NA
May 2023	Lumix Xchange	Connectbase	Networking Systems Software and Services	Developer of web-based tools intended to offer software, products and solutions for B2B telecom operators and cloud service providers	M&A	NA	NA	NA
May 2023	Unite	COX	Networking & Communications Equipment	Provider of fiber-optic communications infrastructure services intended for schools, governments, and data centers	M&A	NA	NA	NA
May 2023	Lit Communities	OAK HILL CAPITAL	Networking & Communications Equipment	Provider of internet access and digital infrastructure services	M&A	\$150	NA	NA
May 2023	VENYU	DartPoints	Data Centers and Colocation	Provider of data center, cloud hosting, and disaster recovery services	M&A	NA	NA	NA
Apr 2023	tempo	konatel	Telecommunication Services (Primary)	Provider of telecommunication services including prepaid and lifeline voice, text and data communication	M&A	NA	NA	NA
Apr 2023	Consolidated Communications	BCI	Telecommunication Services (Primary)	Provider of communication services including data and internet solutions, voice, and data center services	M&A	\$2,635	2.3x	7.8x
Apr 2023	redit by AMERICAN TOWER	FLO NETWORKS	Networking Systems Software and Services	Provider of fiber optic connectivity solutions	M&A	NA	NA	NA
Mar 2023	amadys	Netceed	Communications Technology Distributors	Distributor of passive network equipment for water, gas, electricity and telecom infrastructures	M&A	NA	NA	NA
Mar 2023	Hemisphere	CNH INDUSTRIAL	Networking & Communications Equipment	Provider of satellite positioning services and positioning equipment	M&A	\$175	NA	NA



Notable 2023 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Mar 2023		BASALT INFRASTRUCTURE PARTNERS	Unified Communications	Provider of fiber-based broadband services intended for education, carrier, government and enterprise customers	M&A	NA	NA	NA
Mar 2023			Unified Communications	Provider of wireless service plans, prepaid plans, flexible data options and streaming services	M&A	\$1,350	NA	NA
Mar 2023			Unified Communications	Provider of fixed-wireless internet based in Oklahoma City, Oklahoma	M&A	NA	NA	NA
Mar 2023			Networking & Communications Equipment	Manufacturer of specialty communications and cyber security products	M&A	\$45	NA	NA
Mar 2023			Unified Communications	Provider of wireless internet services operating in four counties across Washington and Idaho	M&A	NA	NA	NA
Mar 2023			Networking & Communications Equipment	Provider of broadband wireless communication services including 5G fixed wireless	M&A	\$60	NA	NA
Mar 2023			Unified Communications	Operator of an aggregator of rental streams underlying wireless sites	M&A	\$3,000	NA	NA
Feb 2023			Networking & Communications Equipment	Operator of fiber-based network development, neutral host operations and smart connectivity platforms	M&A	NA	NA	NA
Feb 2023			Networking Systems Software and Services	Developer of a multi-cloud network security platform	M&A	NA	NA	NA
Feb 2023			Unified Communications	Provider of wireless internet, telephone, and fiber-based internet solutions	M&A	NA	NA	NA
Jan 2023			Unified Communications	Provider of wireless internet services including LAN, bandwidth, fiber and fixed wireless	M&A	\$11	NA	NA
Jan 2023			Unified Communications	Developer and operator of fiber-to-the-home broadband networks	M&A	NA	NA	NA
Jan 2023		Mdwerks	Networking & Communications Equipment	Designer, manufacturer, and distributor of radio and television broadcast products	M&A	NA	NA	NA
Jan 2023	Openbyte Infrastructure		Networking & Communications Equipment	Provider of open-access landing solutions intended to serve submarine cables	M&A	NA	NA	NA
Jan 2023			Unified Communications	Provider of fiber optic-based telecommunications services	M&A	NA	NA	NA
Jan 2023			Networking Systems Software and Services	Developer of a network connectivity management platform	M&A	NA	NA	NA
Jan 2023			Unified Communications	Provider of internet and voice services catering to residential and small-to-medium-sized businesses	M&A	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Dec 2022	THE SWITCH	TATA	Networking Systems Software and Services	Provider of broadcast video transport, video switching and transmission services	M&A	\$59	0.7x	NA
Dec 2022	Global Telecom	xtel	Unified Communications	Maryland-based competitive local exchange carrier (CLEC)	M&A	NA	NA	NA
Dec 2022	ATA	Aligned Advanced Data Center	Data Centers and Colocation	Provider of data center infrastructure and colocation services	M&A	NA	NA	NA
Dec 2022	FIBER Communications	ziPLY FIBER	Diversified Communications	Provider of high-speed fiber internet services	M&A	NA	NA	NA
Dec 2022	LUMENISITY	Microsoft	Networking Systems Software and Services	Developer of advanced optic cable services	M&A	NA	NA	NA
Dec 2022	switch	DIGITALBRIDGE JFM	Data Centers and Colocation	Designer and operator of hyper-scale data centers	Take-Private	\$10,579	19.9x	35.0x
Dec 2022	opticaltel	AN TIN Advanced Fiber Optic Solutions	Networking Systems Software and Services	Provider of fiber broadband products and services	M&A	NA	NA	NA
Dec 2022	Missouri Telecom	BLUEBIRD NETWORKS	Networking & Communications Equipment	Middle-Mile Network Assets of Missouri Telecom	M&A	NA	NA	NA
Nov 2022	Rit West COMMUNICATIONS	NOVACAP	Networking Systems Software and Services	Provider of telecommunication services in Utah and Wyoming	M&A	NA	NA	NA
Nov 2022	TIBIT communications inc	ciena	Networking & Communications Equipment	Manufacturer of pluggable devices intended to virtualize the access network	M&A	\$250	NA	NA
Nov 2022	BENL NETWORKS	ciena	Networking Systems Software and Services	Developer of virtual service platform designed for the creation and delivery of IP services	M&A	NA	NA	NA
Nov 2022	archtopfiber	archtopfiber	Unified Communications	Provider of voice, video and internet services	M&A	NA	NA	NA
Nov 2022	edge-core NETWORKS	Partners Group	Data Centers and Colocation	Developer and operator of highly scalable, cloud-connected, wholesale data center campuses	M&A	\$1,200	NA	NA
Nov 2022	WEST CENTRAL WIRELESS	verizon	Networking & Communications Equipment	Select spectrum and wireless assets of West Central Wireless	M&A	NA	NA	NA
Nov 2022	likewise.	GENSTAR	Communications Technology Distributors	Distributor of mobile devices and specialized wireless services	Capital Raise	NA	NA	NA
Nov 2022	ALLIANCE COMMUNICATIONS	GetWireless	Networking & Communications Equipment	Alliance and GetWireless merged to build a more diversified value-added telecom platform	IPO/Merger	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Nov 2022	AMS HELIX DIGITAL INFRASTRUCTURE SOLUTIONS	SALUTE HOSPITAL CLINICAL	Data Centers and Colocation	Provider of a variety of digital infrastructure solutions	M&A	NA	NA	NA
Nov 2022	MERCURY broadband	Northleaf	Diversified Communications	Provider of high-speed internet and digital phone services	M&A	\$230	NA	NA
Nov 2022	CABLE CONNECTIVITY GROUP	INFINITE ELECTRONICS, INC.	Networking & Communications Equipment	Manufacturer and supplier of electronic components intended to serve a global engineering customer base	M&A	\$133	NA	NA
Nov 2022	HeliOS	HELIOS <small>Investment Partners</small>	Data Centers and Colocation	Carrier and cloud-neutral colocation data center operator in Kenya	Private Placement	\$50	NA	NA
Nov 2022	LUMEN®	colt	Diversified Communications	EMEA business of Lumen Technology's EMEA business	M&A	\$1,800	NA	11.0x
Oct 2022	COMMSBROUERS	LS NETWORKS	NA	Provider of technical consulting services specializing in telecommunications	M&A	NA	NA	NA
Oct 2022	Infra Next Partners	SMC	Investor Consolidation	Infrastructure investment platform	M&A	NA	NA	NA
Oct 2022	cellnex using fiber to connect us	Wireless Infrastructure Group	Networking & Communications Equipment	1,100 Cellnex UK phone towers	M&A	NA	NA	NA
Oct 2022	WMS	CCP CAPITAL	Networking Systems Software and Services	Provider of maritime cellular network services intended for cruise, ferry, yacht and shipping markets	M&A	NA	NA	NA
Oct 2022	PeakNet	EVEREST	Networking & Communications Equipment	Communications Tower Assets of PeakNet	M&A	NA	NA	NA
Oct 2022	DC DATACENTER ONE	AtlasEdge	Data Centers and Colocation	Four data centers in Germany	M&A	NA	NA	NA
Oct 2022	telenor group	KKR	Networking & Communications Equipment	30% stake of Telenor's passive fiber assets	Private Placement	\$1,080	NA	21.0x
Oct 2022	SUNGARD®	II:II SYSTEMS	Diversified Communications	Recovery Business of Sungard Availability Services LP	M&A	NA	NA	NA
Oct 2022	GeopublicWeb	ACCELECOM	Networking Systems Software and Services	Provider of broadband services	M&A	NA	NA	NA
Oct 2022	HGT	CEQUET	Networking & Communications Equipment	Provider of local telephone, television and internet services in west central Ohio	M&A	NA	NA	NA
Oct 2022	LUMEN®	APOLLO	Unified Communications	The incumbent local exchange carrier business in 20 states of Lumen Technologies	M&A	\$7,100	NA	NA
Oct 2022	Viasat	L3HARRIS FAST FORWARD	Networking & Communications Equipment	Link 16 Tactical Data Links business of Viasat	M&A	\$1,960	4.9x	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Sep 2022	Pocket iNet	lightspeed	Diversified Communications	Provider of high-speed telecommunications internet and security services	M&A	NA	NA	NA
Sep 2022	zecOps	jamf	Networking Systems Software and Services	Developer of a cybersecurity software platform	M&A	\$44	NA	NA
Sep 2022	Reposify	CROWDSTRIKE	Networking Systems Software and Services	Developer of a cybersecurity software platform	M&A	\$19	NA	NA
Sep 2022	KnowBe4	VISTA	Networking Systems Software and Services	Provider of a security awareness training software	M&A	\$4,380	15.1x	210.3x
Sep 2022	Moundville Communications	Fastwyre Broadband	Networking Systems Software and Services	Provider of fiber-based broadband services	M&A	NA	NA	NA
Sep 2022	Intrado	Stonepeak	Networking Systems Software and Services	Safety Business of Intrado Corporation comprises public emergency telecommunications services	M&A	\$2,400	NA	NA
Sep 2022	everywhere wireless	SILVERIP a division of IN	Diversified Communications	MDU-Focused Internet Service Provider in the Midwest	Merger	NA	NA	NA
Sep 2022	Paige	GCG	Networking & Communications Equipment	Designer and manufacturer of customized electric wires, connectorized cable assemblies, and accessories	M&A	NA	NA	NA
Sep 2022	US SIGNAL	igneo Infrastructure Partners	Diversified Communications	Provider of colocation, IT infrastructure, endpoint monitoring, data management, disaster recovery, and security services	M&A	NA	NA	NA
Sep 2022	Rahicom	Rahicom Business Corp.	Networking Systems Software and Services	Provider of wireless broadband networks in rural and underserved areas of North America	M&A	\$1.8	NA	NA
Sep 2022	Rahi Systems	wesco	Diversified Communications	Provider of cloud computing, mobile application engineering, networking, and data center infrastructure solutions	M&A	\$217	NA	NA
Sep 2022	T-Mobile	cogent	Networking & Communications Equipment	T-Mobile's Wireline Business comprises long-haul fiber network assets	M&A	NA	NA	NA
Aug 2022	Bravo TECH	STARSOLUTIONS	Networking & Communications Equipment	Manufacturer of mobile communication radio frequency power amplifiers and other communication products	M&A	\$0.8	NA	NA
Aug 2022	Parallel FOR MASS FRACTIONAL USE	HARMONITOWERS	Networking & Communications Equipment	Designer, leasor and operator of telecommunication towers	M&A	NA	NA	NA
Aug 2022	SUNGARD AVAILABILITY SERVICES	II:II SYSTEMS	Diversified Communications	U.S. Colocation and Network Business Of Sungard Availability Services LP comprises its colocation and network business	M&A	NA	NA	NA
Aug 2022	Signal Mountain	ANUVU	Networking & Communications Equipment	Provider of satellite equipment and services	M&A	NA	NA	NA
Aug 2022	mval connect	ALL THINGS MOBILE ANALYTIC INC	Diversified Communications	Provider of voice, short messaging and backup services, network hosting, and disaster recovery plans	M&A	\$4	NA	NA































Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Aug 2022			Diversified Communications	Provider of the internet service provider (ISP) and telecommunication services	M&A	NA	NA	NA
Aug 2022		△ Audax Private Equity	Networking & Communications Equipment	Provider of telecommunications solutions	Private Placement	NA	NA	NA
Aug 2022	NA		Networking Systems Software and Services	Developer of an intelligent community infrastructure platform	Private Placement	\$35	NA	NA
Aug 2022			Networking Systems Software and Services	Provider of local exchange carrier services	M&A	NA	NA	NA
Aug 2022			Networking Systems Software and Services	Provider of secure access to any service, application or API from any device	M&A	\$2,796	9.1x	NA
Aug 2022			Data Centers and Colocation	The U.S. Colocation and Network Business of Sungard Availability Services	M&A	NA	NA	NA
Jul 2022			Diversified Communications	Provider of telecommunications and broadband services	M&A	NA	NA	NA
Jul 2022			Core Cloud Infrastructure Technology	Provider of wireless infrastructure services	M&A	NA	NA	NA
Jul 2022			Core Cloud Infrastructure Technology	Operator of a global communications network	M&A	\$3,204	NA	NA
Jun 2022			Diversified Communications	Provider of telecommunications consulting, brokerage, and distribution services specialized in the advanced network	M&A	\$1,000	NA	NA
Jun 2022			Networking Systems Software and Services	Operator, designer, and optimizer of fiber optic networks in the United States	M&A	NA	NA	NA
Jun 2022			Diversified Communications	Provider of internet protocol-based wired and wireless networking services	M&A	NA	NA	NA
Jun 2022			Diversified Communications	Provider of turn-key digital, radio, and presentation annuity lead systems	M&A	NA	NA	NA
Jun 2022			Diversified Communications	Provider of telecommunications consulting, brokerage, and distribution services	M&A	NA	NA	NA
Jun 2022			Data Centers and Colocation	Provider of managed IT services designed to offer uninterrupted access to customer data and applications	M&A	\$4,444	NA	NA
Jun 2022	Asia Connectivity Elements		Diversified Communications	Operator of a carrier neutral cable landing station and a data center in Guam	M&A	NA	NA	NA
Jun 2022			Data Centers and Colocation	Operator of data center real estate and infrastructure investment platform	M&A	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Jun 2022			Networking Systems Software and Services	Provider of broadband services to residential and commercial customers across Northeast Oregon	M&A	NA	NA	NA
Jun 2022	Visual Systems Group		Diversified Communications	Provider of integrated videoconferencing, data, and network services	M&A	NA	NA	NA
May 2022			Core Cloud Infrastructure Technology	Operator of wireless telecommunication infrastructure	M&A	NA	NA	NA
May 2022			Networking Systems Software and Services	Provider of 5G assurance applications and solutions	M&A	NA	NA	NA
May 2022		GI PARTNERS	Data Centers and Colocation	Operator of highly networked and energy efficient data center	M&A	NA	NA	NA
May 2022			Networking Systems Software and Services	Operator of mobile virtual network enabler business and associated contracts	M&A	\$60	NA	NA
May 2022			Networking & Communications Equipment	Operator of fiber networks including a unique dark fiber network	M&A	NA	NA	NA
May 2022		Index7 Exchange	Data Centers and Colocation	Provider of data management services to a variety of industries	M&A	NA	NA	NA
May 2022	HAWAIIKI		Networking & Communications Equipment	Operator of a submarine cable system committed to improving connectivity	M&A	NA	NA	NA
May 2022			Diversified Communications	Operator of a data center	M&A	NA	NA	NA
May 2022			Unified Communications	Provider of fiber-based enterprise voice and data services	Private Placement	\$100	NA	NA
May 2022			Networking & Communications Equipment	Provider of telecommunications infrastructure for U.S. military bases	M&A	NA	NA	NA
May 2022			Data Centers and Colocation	Provider of colocation space and related services	M&A	\$10,579	16.9x	35.0x
May 2022			Core Cloud Infrastructure Technology	Provider of premium blends of IP transit for customers within its own colocation and cloud connectivity ecosystem	M&A	NA	NA	NA
May 2022			Core Cloud Infrastructure Technology	Developer, owner, and operator of wireless digital infrastructure	M&A	NA	NA	NA
May 2022			Networking Systems Software and Services	Provider of customer experience management and access network optimization solutions	M&A	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Apr 2022	GTN	edgeconnex	Data Centers and Colocation	Operator of data centers intended to provide assistance to growing businesses	M&A	\$2,500	NA	NA
Apr 2022	WatchGuard	VECTOR CAPITAL	Diversified Communications	Developer of network intelligence products dedicated to making enterprise-grade security	M&A	NA	NA	NA
Apr 2022	NTTSecurity	SYNOPSYS	Diversified Communications	Developer of a risk management platform designed to offer website security services	M&A	\$330	NA	NA
Apr 2022	FICOLO	D/9 DIGITAL INFRASTRUCTURE	Core Cloud Infrastructure Technology	Provider of data center and cloud services	M&A	\$139	NA	NA
Apr 2022	GATESAIR	THOMSON	Unified Communications	Manufacturer of multi-channel television and radio transmitters	M&A	NA	NA	NA
Apr 2022	DIGITALBRIDGE	Wafra	Core Cloud Infrastructure	Provider of digital infrastructure investment management services	M&A	NA	NA	NA
Apr 2022	UNITAS GLOBAL	DIGITAL ALPHA	Networking Systems Software and Services	Provider of next-generation network services that offer automated ubiquitous edge access to cloud	M&A	NA	NA	NA
Apr 2022	MOUNDRIDGE COMMUNICATIONS NETWORK	NEXTECH	Networking Systems Software and Services	Provider of communications networking solutions intended to offer internet access and telephone services	M&A	NA	NA	NA
Apr 2022	redline communications	Aviat	Networking & Communications Equipment	Provider of mission-critical data infrastructure in Canada	M&A	\$20	NA	NA
Apr 2022	PROBIT	ClearShark	Diversified Communications	Provider of IT consulting services intended to facilitate an efficient and secure supply chain	M&A	NA	NA	NA
Apr 2022	Barracuda	KKR	Diversified Communications	Provider of online security products and services designed to secure all threat vectors on-site or in the cloud	M&A	\$4,000	NA	NA
Apr 2022	SailPoint	THOMABRAVO	Diversified Communications	Provider of enterprise identity governance solutions	M&A	\$6,900	17.1x	NA
Apr 2022	LightRiver	GRAIN MANAGEMENT	Diversified Communications	Provider of optical network integration technology systems and associated services	M&A	NA	NA	NA
Mar 2022	Cincinnati Bell (now Altafiber)	MACQUARIE	Data Centers and Colocation	Delivers integrated communications solutions to residential and business customers	M&A	\$2,900	NA	NA
Mar 2022	Consolidated communications	HORIZON	Networking & Communications Equipment	Operator of 450 route miles of fiber networks in Ohio	M&A	NA	NA	NA
Mar 2022	BULLSEYE TELECOM	Lingo	Unified Communications	Provider of integrated communications services	M&A	NA	NA	NA
Mar 2022	empire	ANTIN ENERGY SERVICES	Diversified Communications	Provider of telecommunications services and technologies	Private Placement	NA	NA	NA
Mar 2022	NetFortris	SANGOMA	Unified Communications	Provider of UCaaS and managed IT network services	M&A	\$80	NA	NA

Source: S&P Capital IQ; PitchBook; Telecom Ramblings
Based on date announced or closed



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Mar 2022	ZIMPERIUM	LIBERTY	Networking Systems Software and Services	Developer of a mobile threat defense platform	M&A	\$529	NA	NA
Mar 2022	plantronics	hp	Unified Communications	Designer and manufacturer of communications equipment	M&A	\$3,280	2.0x	28.8x
Mar 2022	telenet	DIGITALBRIDGE	Networking & Communications Equipment	Mobile telecommunications tower business	M&A	\$820	NA	NA
Mar 2022	SIMPLIQFY	Objective	Diversified Communications	Operator of a content integration platform	M&A	NA	NA	NA
Mar 2022	MARCOM	InteractiveTel	Diversified Communications	Provider of automotive dealership telephone training	M&A	NA	NA	NA
Mar 2022	STC NETWORK, INC.	CENTERLINE COMMUNICATIONS	Networking Systems Software and Services	Provider of engineering and technical support services intended for the wireless industry	M&A	NA	NA	NA
Mar 2022	helpsystems	helpsystems	Networking Systems Software and Services	Developer of security SaaS software	M&A	NA	NA	NA
Mar 2022	MANDIANT	Google	Networking Systems Software and Services	Developer of incident response, threat intelligence, automated response, and managed security software	M&A	\$5,888	9.2x	NA
Mar 2022	edgecast	Limelight	Networking Systems Software and Services	Provider of media content delivery services intended for cloud security and video streaming	M&A	\$319	NA	NA
Mar 2022	er@	zayo	Diversified Communications	Provider of data and communication services	M&A	NA	NA	NA
Mar 2022	INTEGRA	net2phone	Networking Systems Software and Services	Provider of IT consultancy services intended to support contact centers	M&A	NA	NA	NA
Mar 2022	TCG	magna5	Networking Systems Software and Services	Provider of managed IT and cybersecurity services	M&A	NA	NA	NA
Feb 2022	ROBIN	Rakuten Symphony	Networking Systems Software and Services	Developer of an application virtualization platform	M&A	NA	NA	NA
Feb 2022	SecureLink	impervata	Networking Systems Software and Services	Provider of VPNs and shared desktop solutions	M&A	NA	NA	NA
Feb 2022	AREA 1	CLOUDFLARE	Networking Systems Software and Services	Developer of threat intelligence software	M&A	\$162	NA	NA
Feb 2022	HEARTLAND	THAYER POWER & COMMUNICATIONS	Core Cloud Infrastructure Technology	Provider of construction and contracting services focused on the wireless communication sector	M&A	NA	NA	NA
Feb 2022	LEAF COMMUNICATIONS	CENTERLINE COMMUNICATIONS	Core Cloud Infrastructure Technology	Provider of turnkey wireless telecommunications infrastructure services	M&A	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Feb 2022	WiFiber	Viatel	Diversified Communications	Provider of broadband services	M&A	NA	NA	NA
Feb 2022	ImOn	Goldman Sachs Asset Management	Unified Communications	Provider of internet, video and voice services to residential and commercial customers	M&A	NA	NA	NA
Feb 2022	Simfony	TOFANE	Networking Systems Software and Services	Developer of mobile virtual network enabler platform	M&A	NA	NA	NA
Feb 2022	EnergyX	REDIVIDER	Core Cloud Infrastructure Technology	Developer of next-generation data center infrastructure	M&A	NA	NA	NA
Feb 2022	RESONANT	muRata	Networking & Communications Equipment	Designer of radio frequency filters	M&A	\$295	NA	NA
Feb 2022	ARROW	resideo	Communications Technology Distributors	Distributor of data communications, connectivity and security products.	M&A	\$15	NA	NA
Feb 2022	CHIRISA	STRATEGIC CAPITAL FUND MANAGEMENT	Data Centers and Colocation	Triple net leased data center located in the Denver metropolitan area	M&A	\$14	NA	NA
Feb 2022	africell	SEACOM	Core Cloud Infrastructure Technology	Selected Infrastructure Assets	M&A	NA	NA	NA
Feb 2022	GO WIRELESS	nws	Communications Technology Distributors	Distributor of wireless infrastructure communications products	M&A	NA	NA	NA
Jan 2022	VCHNGE	IB DATA CENTERS	Data Centers and Colocation	Seven data centers (Nashville, Philadelphia, Pittsburgh, Portland, Secaucus, St. Louis, and St. Paul)	M&A	NA	NA	NA
Jan 2022	citrix	VISTA	Diversified Communications	Provider virtualization software	M&A	\$16,655	5.0x	27.1x
Jan 2022	mobileum	MFC CAPITAL	Networking Systems Software and Services	Provider of data analytics services intended for the telecommunication sector	Private Placement	NA	NA	NA
Jan 2022	airtel	Google	Diversified Communications	Provider of a variety of telecommunications services	Private Placement	\$700	NA	NA
Jan 2022	BLUE DANUBE AN REC COMPANY	NEC	Networking & Communications Equipment	Developer of mobile wireless access systems	M&A	NA	NA	NA
Jan 2022	VEXUS	METRONET	Diversified Communications	Provider of fiber-based communications	IPO/Merger	NA	NA	NA
Jan 2022	IPG	cloudinfrastructure	Networking & Communications Equipment	Developer of an on-premise appliance that manages secure IoT defined networks	M&A	NA	NA	NA



Notable 2022 Cloud Infrastructure and Communications Transactions, Cont'd

Date	Target	Acquirer	Sector	Target Description	Transaction Type	Implied EV (\$M)	EV/Revenue	EV/EBITDA
Jan 2022	CyrusOne	DATABANK	Data Centers and Colocation	Four data centers in Houston, Texas	M&A	\$670	NA	NA
Jan 2022	COLOHOUSE	STEADFAST CAPITAL	Networking Systems Software and Services	Provider of managed cloud and colocation services	M&A	NA	NA	NA
Jan 2022	QOS NETWORKS	zayo	Networking Systems Software and Services	Provider of fiber-based communications solutions	M&A	NA	NA	NA
Jan 2022	CENTERLINE COMMUNICATIONS	Audax Private Equity	Core Cloud Infrastructure Technology	Designer and builder of wireless and wireline network infrastructure	M&A	NA	NA	NA
Jan 2022	SDI Black 011 LLC Mango Tel LLC SDI Wireless	CUENTAS	Communications Technology Distributors	The operations and distribution network of prepaid wireless and digital providing business	M&A	\$3	NA	NA
Jan 2022	emitel	Cordiant	Core Cloud Infrastructure Technology	Operator of terrestrial radio and television infrastructure	M&A	\$478	NA	NA
Jan 2022	Wood River Network	GREAT PLAINS COMMUNICATIONS	Core Cloud Infrastructure Technology	Builder and operator of fiber networks in Nebraska	M&A	NA	NA	NA
Jan 2022	Consolidated Communications	ALINDA	Diversified Communications	Kansas City fixed broadband assets	M&A	\$90	NA	NA

SECTION 05

About D.A. Davidson



About D.A. Davidson

D.A. Davidson provides investment banking, wealth management, nationally-recognized research, and advisory services - with an 88-year track record of excellence.

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\$662M

NET REVENUE

\$65B

ASSETS UNDER ADMINISTRATION

\$326M

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100%

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1,600+

EMPLOYEES

100+

OFFICE LOCATIONS



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Curated private offerings to carefully selected and vetted parties, including institutional investors

CORPORATE ADVISORY

Services for companies and executives looking for experience, product knowledge, and guidance

Our Industries

TECHNOLOGY

- comc**: has received a growth investment from **ebay** (SELL-SIDE ADVISOR)
- Amkor Technology**: has completed a secondary offering of common stock (\$240,000,000)
- vizlib**: has been acquired by **insightsoftware** (a portfolio company of **gestira** and **Hg**) (SELL-SIDE ADVISOR)
- APPTIO**: a portfolio company of **VISTA** has been acquired by **IBM** (SELL-SIDE ADVISOR)
- LiquidPlanner**: a portfolio company of **TVC** has been acquired by **Tempo** (a portfolio company of **DIVERSIS CAPITAL**) (SELL-SIDE ADVISOR)
- WALL STREET HORIZON**: has been acquired by **TMX** (SELL-SIDE ADVISOR)
- Miradore**: has been acquired by **GoTo** (SELL-SIDE ADVISOR)
- TouchPoint**: has been acquired by **PURSUANT** (a portfolio company of **Capgemini**) (SELL-SIDE ADVISOR)
- GoldenSource**: a portfolio company of **IVUS** has been acquired by **GENSPRING** (SELL-SIDE ADVISOR)
- ProductPlan**: has been acquired by **BOWLER** (FINANCIAL ADVISOR)

CONSUMER

- ACTIVEPIPE**: has been acquired by **MoxiWorks** (a portfolio company of **VECTOR CAPITAL**) (SELL-SIDE ADVISOR)
- TIER1CRM**: a portfolio company of **WAYCREST** has been acquired by **SS&C** (SELL-SIDE ADVISOR)
- IronRod**: has received growth capital from **HCAP PARTNERS** (FINANCIAL ADVISOR)
- SalesRabbit**: has been acquired by **DIVERSIS CAPITAL** (SELL-SIDE ADVISOR)
- THOUGHTFOCUS**: has received an investment from **TTTech** (FINANCIAL ADVISOR)
- CONNEXPAY**: has received an investment from **MARQETA** (FINANCIAL ADVISOR)
- intuition**: a portfolio company of **CENTENNIAL INVESTMENTS** has been acquired by **majesco** (a portfolio company of **PSG** and **TPG**) (FINANCIAL ADVISOR)
- earnup**: has received Series C investments from **Wells Fargo**, **Bank of America**, **JP Morgan Chase**, **Capital One**, **Discover**, **Chase**, **Bank of America**, **Wells Fargo**, **JP Morgan Chase**, **Capital One**, **Discover**, **Chase** (FINANCIAL ADVISOR)
- AdvantageData**: has been acquired by **Wells Fargo** (a portfolio company of **Wells Fargo**) (SELL-SIDE ADVISOR)

DIVERSIFIED INDUSTRIALS

- airbnb**: has completed an initial public offering of common stock (\$3,830,000,108) (CO-MANAGER)
- CONNEXPAY**: has received a significant growth equity investment from **FTV** (a portfolio company of **PANORAMIC F-PRIME**) (FINANCIAL ADVISOR)
- Informative Research**: has been acquired by **stewart** (SELL-SIDE ADVISOR)
- wisp**: has agreed to be acquired by **WELL Health** (FINANCIAL ADVISOR)
- clearwater**: has received an initial public offering of common stock (\$621,000,000) (CO-MANAGER)
- LEVELSET**: has agreed to be acquired by **PROCORE** (SELL-SIDE ADVISOR)
- PWCC**: has obtained an asset-backed financing from **WINTHAW** and **Wingate** (\$175,000,000) (FINANCIAL ADVISOR)
- REMARKABLE HEALTH**: has been acquired by **Netmart** (a portfolio company of **GE PARZENER**) (SELL-SIDE ADVISOR)
- QuickFee**: has established a multi-currency asset-backed financing with **Northleaf Capital Partners** (FINANCIAL ADVISOR)
- Discovery Data**: a company backed by **Wells Fargo**, **Bank of America**, **JP Morgan Chase**, **Capital One**, **Discover**, **Chase** (SELL-SIDE ADVISOR)

FINANCIAL INSTITUTIONS

- coursera**: has completed an initial public offering of common stock (\$596,937,000) (CO-MANAGER)
- LONG RIDGE**: a portfolio company of **LONG RIDGE** has acquired **tradovate** (BUY-SIDE ADVISOR)
- swarm64**: has been acquired by **servicenow** (SELL-SIDE ADVISOR)
- NIMBIX**: has been acquired by **Atos** (SELL-SIDE ADVISOR)
- CAPITOL INVESTMENT V**: has acquired **doma** (FINANCIAL ADVISOR)
- FUNDAMENTAL**: has acquired **OppFi** (FINANCIAL ADVISOR)
- ARIA**: has been acquired by **Halo** (SELL-SIDE ADVISOR)
- SmartRent**: has been acquired by **FIFTH WALL** (FINANCIAL ADVISOR)
- ctl**: has been acquired by **Columbia River Partners** (SELL-SIDE ADVISOR)
- SYMPHONY**: a company backed by **Google**, **cta**, **cta**, **cta**, **cta**, **cta**, **cta** has acquired **streetlink** (FINANCIAL ADVISOR)

Delivering Superior Outcomes For Our Clients

110+ TRANSACTIONS

\$21B+ DEAL VALUE

50+ M&A TRANSACTIONS

60+ DEBT & EQUITY FINANCINGS

Note: Figures represent Technology group performance since 2020 (as of June 30, 2023)

Advisory Platform Supported By Robust Transaction Capabilities

1. Public Markets

Tailored public markets equity financing and market connectivity

Senior-level expertise and attention providing clients flexibility through a range of solutions and hundreds of institutional relationships

- Initial Public Offerings (IPOs)
- At-the-Market Offerings (ATM)
- Preferred Securities Offerings
- Convertible Securities Offerings
- Private Investment in Public Equities (PIPEs)
- Unit Investment Trusts (UITs)

2. Financial Sponsor Coverage

Adding value at every stage of the investment

Our team works with hundreds of funds across the globe, bringing an unwavering focus to helping middle market private equity firms and family offices generate returns for their investors

3. Debt Advisory

Unique solutions across the capital spectrum

Our debt capital markets specialists work with companies and financial sponsors to optimize the capital stack by structuring and placing senior and junior debt utilizing our network of over 300 lending relationships



4. International Footprint

Transatlantic M&A platform and global deal experience

D.A. Davidson partners with MCF International to leverage the power of our network of decision makers and investors across the US and Europe - and have completed 250+ transactions across 27+ continents

Key Contacts



Tim Monfort
Managing Director



Josh Nolan
Managing Director



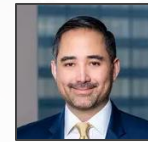
Yaron Redlich
Managing Director



Zach Rosen
Managing Director



Amy Johnson
Managing Director



Clinton Miyazono
Managing Director



Erik Pettersson
Partner, MCF
Corporate Finance



Rita Lei
Partner, MCF
Corporate Finance



D.A. Davidson Has Robust Resources Dedicated To Financial Sponsor Coverage

D.A. Davidson provides in-depth coverage of private equity firms that invest in Communications Technology and Digital Infrastructure businesses

Team Overview

Value Creation: D.A. Davidson works to deliver high-quality middle-market deal flow and impeccable execution

Robust Coverage: In-depth coverage of the financial sponsor community, from mega funds to family offices

Access: Proven relationships with decision makers unlocks client access to capital across the spectrum from equity to debt and from control to growth and minority

Trusted Partnership: A reliable, long-term partner to private equity, consistently selling deals to and for financial sponsors



YARON REDLICH
MANAGING DIRECTOR,
HEAD OF FINANCIAL SPONSORS



ZACH ROSEN
MANAGING DIRECTOR,
FINANCIAL SPONSORS

Sell-Side Advisory

 has been acquired by LEE TWIN POINT EQUITY SELL-SIDE ADVISOR	 has been acquired by Columbia River Partners SELL-SIDE ADVISOR	 has been acquired by PERISCOPE EQUITY SELL-SIDE ADVISOR	 has been acquired by RIB Group SELL-SIDE ADVISOR	 a portfolio company of VISTA has been acquired by IBM SELL-SIDE ADVISOR	 a portfolio company of INUS has been acquired by GEMSPRING CAPITAL SELL-SIDE ADVISOR
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Buy-Side Advisory

 from affiliates of KKR BUY-SIDE ADVISOR	 have acquired a minority interest in TRIPLE POINT from abry partners BUY-SIDE ADVISOR	 a portfolio company of LONG RIDGE has acquired tradovate BUY-SIDE ADVISOR	 has acquired MOMENTUM STAFF a portfolio company of TULCAN BUY-SIDE ADVISOR	 has acquired ESI BUY-SIDE ADVISOR	 has acquired A-PLUS TREE SERVICE BUY-SIDE ADVISOR
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SELECT RELATIONSHIPS



Wide-Reaching Debt Advisory Capabilities In Tune With Current Debt Markets

Our debt team offers credit market intelligence, bespoke credit financing solutions, market reach, private equity peer intelligence, industry depth and market visibility

Team Overview

Access: The Debt Advisory team maintains contacts across asset management organizations to provide solutions to our clients regardless of the situation

Optimal Outcomes: D.A. Davidson leverages deep industry expertise to optimize a Company's positioning and employs credit knowledge to address key risks and mitigating factors in the financing memorandum

Optionality: The combination of market knowledge and credit positioning allows for a multitude of financing options to meet clients' needs

Robust Coverage: Debt Advisory works with public companies, sponsor-backed companies, founder and family-owned businesses and their investors



AMY JOHNSON
MANAGING DIRECTOR,
HEAD OF DEBT ADVISORY



CLINTON MIYAZONO
MANAGING DIRECTOR,
DEBT ADVISORY



STEVEN FLEISHER
DIRECTOR,
DEBT ADVISORY

SELECT RELATIONSHIPS



Select Transactions

 has received a debt investment from FINANCIAL ADVISOR	 has obtained mezzanine debt from FINANCIAL ADVISOR	 has obtained an asset-backed financing from \$175,000,000 FINANCIAL ADVISOR	 has completed a multi-currency asset-backed financing \$70,000,000 with FINANCIAL ADVISOR	 has completed a public offering of senior notes \$140,000,000 JOINT BOOKRUNNER	 has received a growth equity and debt investment from FINANCIAL ADVISOR	 has completed a public offering of senior notes \$350,000,000 CO-MANAGER	 has completed a public offering of senior notes \$125,000,000 JOINT BOOKRUNNER	 has received an investment from FINANCIAL ADVISOR	 has completed a public offering of senior notes \$69,000,000 BOOKRUNNING MANAGER
 has completed a unitranche credit facility in support of majority sale to FINANCIAL ADVISOR	 has received financing from to support the acquisition of FINANCIAL ADVISOR	 has received financing from to support the acquisition of FINANCIAL ADVISOR	 has received financing from to support the acquisition of FINANCIAL ADVISOR	 a portfolio company of has acquired certain assets of with financing from FINANCIAL ADVISOR	 has raised a splitlien credit facility and preferred equity \$175,000,000 FINANCIAL ADVISOR	 has received an equity and debt investment from PLACEMENT AGENT	 has acquired FINANCIAL ADVISOR & DEBT PLACEMENT AGENT	 has raised a senior secured credit facility \$165,000,000 FINANCIAL ADVISOR & SOLE ARRANGER	 has completed a management buyout with SELL-SIDE ADVISOR



Leading Investment Bank With Cloud Infrastructure and Communications Expertise

Highly knowledgeable team with significant transaction experience and strong industry relationships



BRAD GEVURTZ

MANAGING DIRECTOR,
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Brad Gevurtz is a Managing Director in the Investment Banking group, focused on the technology sector. He has been with D.A. Davidson since 2005 and during his time with the firm has served as the Head of Investment Banking and as a member of the Board of Directors and the Public Equity Commitment Committee. Prior to D.A. Davidson, Mr. Gevurtz worked for over 20 years on Wall Street as a senior banker at JPMorgan Chase, KeyBanc Capital Markets and Broadview Int'l (now Jefferies). He has significant experience in M&A, private placements and public offerings, and has advised some of the largest companies in the world on technology transactions. Mr. Gevurtz started his career at AT&T and has executed M&A and capital raising transactions worldwide for public and private communications companies such as Allen Telecom, Alltel, AT&T, Fastly, Limelight, Lumos, Radisys, Towerstream, Vast Networks, Verizon, Wavecom, and Zayo. He is a current board member and President of his regional ACG, an investor in numerous private equity and venture capital funds, a former board member of Thinking Machines Corporation (parallel processing software company), and a former member of the valuation committee of OVP Venture Partners. Mr. Gevurtz has spoken at industry conferences and has been quoted in numerous publications about corporate finance and M&A issues. He holds a B.A. with Distinction in Economics from Pomona College, a J.D. from the University of Oregon School of Law, and an MBA with Honors in Finance and Accounting from Columbia University where he was elected President of the top academic honor society.



AMY JOHNSON

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Amy Johnson is a Managing Director focused on the Communications and Digital Infrastructure ecosystem for the Technology Investment Banking group and also leads Davidson's Debt Advisory practice. Previously, Ms. Johnson was a managing director and head of debt advisory at The Bank Street Group LLC where she executed investment banking and capital markets transactions for private and public companies spanning fiber networks, data centers, subsea cable, mobile wireless and wireless infrastructure including 365 Data Centers, AboveNet Inc., Airband Communications, Alpheus Communications, ColoAtl/American Tower, Digital Crossroads, GeoLinks, Hibernia Networks, Highwinds Network Group, OnFiber Communications and Pocket Communications. Ms. Johnson was previously an Executive Director at Swiss Bank Corporation/SBC Warburg (now UBS) where she executed nearly \$10 billion in debt capital markets transactions for a variety of blue-chip companies. Ms. Johnson graduated with honors from the University of Notre Dame with a B.B.A. in Finance. Upon graduation, she joined Chase Manhattan Bank in New York and completed their formal credit training program before serving in the bank's New York middle market lending division.



D.A. Davidson Knows Communications Technology

Connect with our team of industry professionals



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D.A. Davidson & Co.'s Investment Banking division is a leading full-service investment bank that offers comprehensive financial advisory and capital markets expertise. The group has extensive experience serving middle market clients worldwide across four industry verticals: consumer, diversified industrials, financial institutions, and technology.

Please visit our [website](#) for additional information.



Together with its European partner, MCF Corporate Finance, D.A. Davidson originates and executes transatlantic M&A transactions under the common brand of D.A. Davidson MCF International.

Please visit the D.A. Davidson MCF International [website](#) for additional information.

MCF Corporate Finance office locations are Frankfurt, Hamburg, Helsinki, London, and Stockholm. Visit the MCF [website](#) for additional information.

