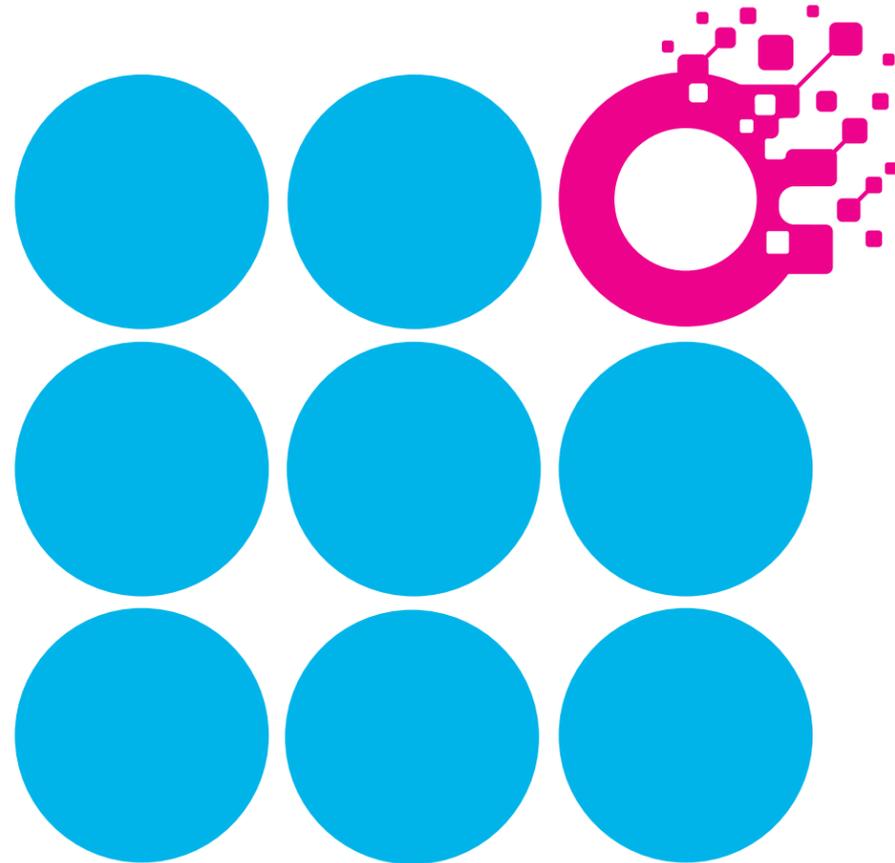


# DIVERSIFYING INTO DIGITAL



**By Warren Wachsberger**  
CEO  
AECOM Capital

**Josh Katzin**  
CIO  
AECOM Capital

**Corbett Kruse**  
Associate  
AECOM Capital

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As investors look for sustainable sources of inflation-protected yield, real estate investment is increasingly blurring into a wider range of real asset investment strategies—including the growing class of “digital” real estate. Inclusive of physical broadband networks (fiber or wireless), small cell and distributed antenna system (DAS) networks, and data centers, digital real estate shares many of the same attributes as traditional real estate, and in many cases, it benefits from even greater positive tailwinds.

For example, at AECOM Capital, the investment arm of AECOM (NYSE: ACM), a global leader in design and engineering services, we have broadened our mandate from the traditional real estate “food groups” to include digital real estate as well. In this article, we detail some of what has attracted our firm to this space, and how digital real estate might benefit other investor portfolios.

Returns on investment in the digital real estate space compare favorably to what is often seen in traditional real estate development opportunities. In our real estate development strategy, for example, we generally target opportunistic returns with a three- to five-year time horizon. We see similar returns on the development of digital real estate on a five- to seven-year time frame, meaning similar internal rates of return and higher multiples. And these returns are often generated with long-term leases to credit tenants such as telecom carriers, government entities, and Fortune 500 companies.

The tailwinds behind the space are compelling. First, we see strong and growing demand drivers. Digital real estate benefits from the exponential growth of data, as well as from new technologies that are improving the way that we capture, store, and distribute data. Fifth-generation communication networks (5G) are currently being rolled out globally. The deployment and advancements of this new technology has set off a wave of new investment in digital assets. The recent pandemic serves as the ultimate use case (and the possible inflection point) for digital interconnectedness.

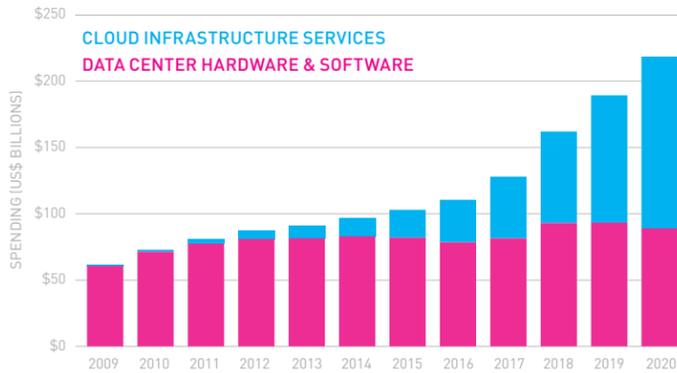
Increased mobile device usage, expanded use of cloud computing, expansion of the Internet of Things (IoT), and advancements in artificial intelligence (AI) are all key demand drivers for continued 5G adoption. Corporate information technology spending on cloud computing alone has exploded to well over \$120 billion<sup>1</sup> in 2020, as Amazon, Microsoft, Oracle, and Google have built out dominant positions in the space. We are still in the early stages of the IoT rollout, which is embedding communications technology in our homes, cars, and wearable devices. And expanded use of AI makes the capture of use of large quantities of data increasingly important. As mundane items increasingly become “smart” through internet connectivity, they will need significant digital infrastructure to support them.

## DEFINING DIGITAL TAILWINDS

At its core, the development of digital real estate shares many of the same economic characteristics as traditional real estate development: You are building a physical asset that is monetized by leasing out a finite amount of built capacity, and whose value depends in large part on lease term, tenant credit, and the stability and growth profile of the underlying cash flows. And as with traditional real estate, investors can choose between a range of approaches based on risk tolerance, including core strategies focused on buying assets with stable in-place cash flows, to more opportunistic strategies that aim to create stabilized assets by either building new assets or by fixing existing non-stabilized assets.

**EXHIBIT 1: ENTERPRISE SPENDING—DATA CENTERS VS. CLOUD INFRASTRUCTURE SERVICES**

Source: Statista, “Enterprise Spending on Cloud and Data Centers by Segment” (May 2021)



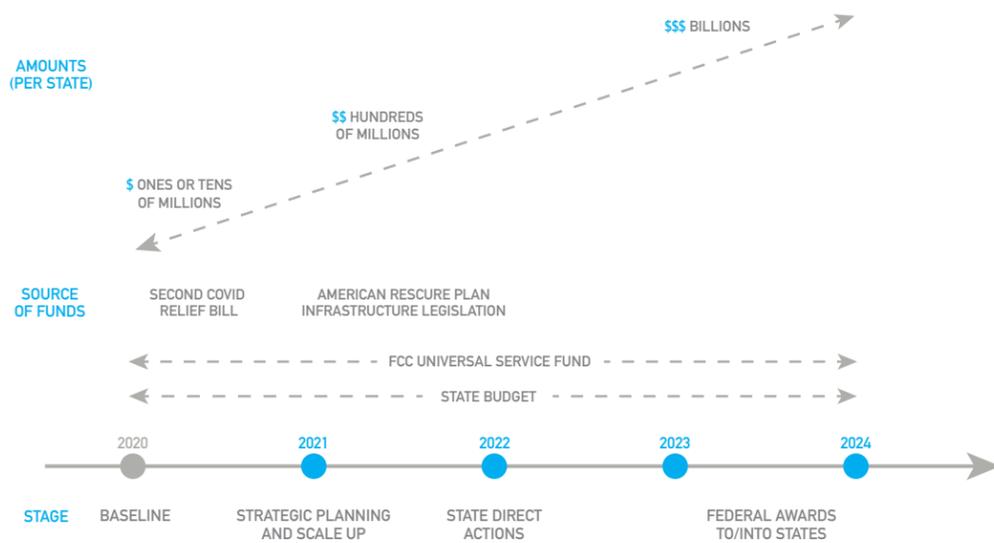
103 bidders won US\$1.49 billion over ten years to provide fixed broadband and voice services to over 700,000 locations across 45 states.

Investment in this space will also benefit from significant federal and state government subsidy, particularly as governments look to rectify the “digital divide” that separates the haves and the have-nots for access to affordable broadband. For example, the Federal Communication Commission has created the Rural Digital Opportunity Fund (RDOF), a US\$20.4 billion initiative created to inject capital into the buildout and maintenance of broadband networks benefiting underserved rural geographies across the US. Hundreds of providers, carriers, investors, and entrepreneurs participated in the RDOF reverse auction and are now quickly seeking equity capital to finance

the initial portion of these high-speed networks. RDOF is also one of several targeted government subsidies meant to incentivize private capital to invest in building out networks that would not be otherwise economically viable. The Connect America Fund Phase II (CAF II) Auction was the preceding federal broadband funding program and was rolled out in 2018; 103 bidders won US\$1.49 billion over ten years to provide fixed broadband and voice services to over 700,000 locations across 45 states. The federal subsidy support from RDOF and CAF II each offer ten years of support with the subsidy distributed in equal monthly installments.

**EXHIBIT 2: STATE BROADBAND FUNDING TIMELINE**

Source: Quadra Partners, LLC, “Seizing the Moment: Scaling Up State Broadband Strategies” (July 2021)



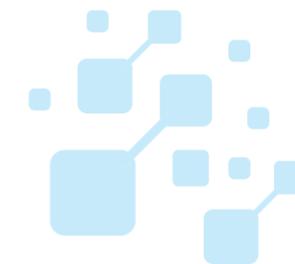
**DIGITAL REAL ESTATE AND ESG TARGETS**

Beyond returns, digital real estate investments that have the potential to bridge the digital divide are beneficial to ESG programs. The social and economic impact that digital infrastructure has been proven to reduce poverty, promote inclusiveness, and enhance gender equity. And the need for this type of investment is global: The development of digital infrastructure has, for example, been shown to have a powerful economic effect in developing countries: with every 10% increase in broadband penetration, GDP is increased by 1.38% per year in developing countries, according to the International Telecommunication Union (ITU).<sup>2</sup> Additionally, ITU studies show that approximately 30 full-time jobs are created for every US\$1 million invested in broadband infrastructure.

For these economic and non-economic reasons, the development of digital real estate is a compelling and growing opportunity for investment portfolios. wherein many cases, demand continues to outstrip supply, which is good for values and returns. Digital real estate also contains the opportunity to improve people’s lives by helping to deliver more equal access to digital infrastructure. And importantly, investment in this area helps grow the economy more broadly, helping to drive innovation and the creation of the jobs of the future.

These trends all existed before the pandemic, but they have only been reinforced as we have all become more aware, and more dependent on, the digital infrastructure that connects us.

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**UNDERSTANDING THE DIGITAL REGULATORY LANDSCAPE**

Many digital investment opportunities involve working with governments to meet their policy and operational goals, which requires a collaborative and consultative approach.

Governments often are better at identifying outcomes that they want to achieve than at figuring out how to harness market forces to help them reach those goals. For example, a state Department of Transportation (DOT) may have the goal of offering smart services along its freeways, which requires laying fiber along roadways to provide the necessary broadband coverage.

Capital constraints aside, the DOT would want to roll that out broadly across its road network—a goal that cannot be met within the state’s budget. The state might look to private capital to fill the gap. But private capital will typically be interested in funding only parts of that broadband rollout—in areas that are most densely populated, or which suffer from gaps in existing fiber coverage, and therefore are the most commercially valuable.

To bridge this gap between the state’s more expansive goals and private capital’s narrower commercial interests, a consultative approach is required. This involves more than just bidding in an auction. As is often the case with public-private partnerships, the best outcomes are achieved when the public entity and private commercial partner find a way to work collaboratively to achieve as much of the state entity’s goals as possible, within its budget constraints, given the range of commercial opportunities available.

This ability to navigate government entities and know the ins-and-outs of working with them is therefore particularly important for these types of investments.

**ABOUT THE AUTHORS**

Warren Wachsberger is CEO, Josh Katzin is CIO, and Corbett Kruse is an associate at AECOM Capital, the principal investment arm of of AECOM (NYSE: ACM), a leading global infrastructure company.

**NOTES**

<sup>1</sup> Statista, “Enterprise Spending on Cloud and Data Centers by Segment,” Statista, May 2021, <https://www.statista.com/statistics/1114926/enterprise-spending-cloud-and-data-centers/>.

<sup>2</sup> International Telecommunication Union, “Economic impact of COVID-19 on Digital Infrastructure,” June 2020, [https://www.itu.int/pub/D-PREF-EF.COVID\\_ECO\\_IMPACT](https://www.itu.int/pub/D-PREF-EF.COVID_ECO_IMPACT)