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How Southwire Keeps Electrons Flowing Through the Digital Economy



The iMasons Legacy Podcast

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The Wire Challenge Ahead

Wires and cables are the arteries and capillaries of the digital infrastructure industry. They convey electrons from electric power supplies to the servers and networking, cooling and mechanical equipment that make data centers run. They are so integrated into the digital economy's anatomy that they are taken for granted, a given hiding in plain sight.

Or so it seems.

Today, this narrative is in flux, noted [Brandon Ellis](#), Director, Strategic Verticals – Data Center Colocation, at [Southwire](#) Company (Southwire), a private, family-owned company that manufactures and supplies wire, cable and related electrical components. That's because the accelerating demand for data center capacity is putting new constraints on the wire and cable supply chain.

"The biggest constraint today is medium voltage cable. That's well known in the industry, but it's important to highlight because medium voltage cabling is what connects a lot of the equipment in data centers," Ellis said. "The challenge is raising awareness so that the demand signal is sent out early for suppliers to capacity plan."

Ellis and his colleagues typically collaborate with electrical contractors on data center construction projects to coordinate on-time delivery of everything from the medium voltage

cables that bring power from substations into the data center to the prefabricated electric cable assemblies called power whips that deliver lower voltage power to server racks.

Today, these conversations start earlier and now often include data center owners and general contractors to ensure sufficient lead time to maintain project schedules, Ellis said.

The data center industry's increased focus on the wire and cable supply chain is consistent with the greater visibility of the entire ecosystem of components required to power the global digital economy, noted [Santiago Suinaga](#), Chief Executive Officer of [Infrastructure Masons](#) (iMasons), a global non-profit professional association that represents the builders of the digital age.

"To keep up with the demand for digital services that data centers enable, every piece of equipment and component matters," he said. "Without wire and cable delivering electric power, we have no digital economy."

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Trusted for 75 Years

Southwire has been in the wire and cable business for over 75 years. Its claim to fame is the innovation of the Southwire Continuous Rod (SCR®) system, a manufacturing process that allows for the creation of a single unbroken strand of copper wire rod from sheets of metal rather than welding together shorter bits of rod.

The efficient manufacturing process and superior quality of the continuous copper or aluminum wire has allowed Southwire to integrate its products into the fabric of electrified life.

In fact, more than half of the world's copper rod is manufactured using SCR® technology, noted [Joel Wynn](#), Vice President, Data Center and Mission Critical Solutions, at Southwire.

This footprint brings Southwire into contact with just about everything that requires electricity.

"We've been involved tangentially with data centers since the beginning of data centers," Wynn said.

In 2017, Southwire acquired DCN Cables, a manufacturer of power whips that connect power distribution units to servers. The acquisition gave Southwire direct exposure to the data center industry and a reason to stand up a dedicated business unit. This made even more sense as demand for medium-voltage cables

skyrocketed, indicating that data centers are a notable load on the electric power grid.

Southwire's established track record meeting the performance specifications of electric utilities and other mission critical infrastructure made for a seamless cultural fit with the digital infrastructure industry, noted Wynn.



Photo courtesy of Southwire



Trusted for 75 Years

“We want to make this industry better for people and for the impact that it’s having on our planet. That’s why it’s so important that manufacturers like Southwire get involved and actively participate in the iMasons community, helping to find creative solutions that drive efficiency through innovation.”

— Gina Bonatti,
Chief of Staff and Marketing,
Infrastructure Masons



“There’s something to be said about being in this business for 75 years,” he said. “If you had a large quality concern or issue, you wouldn’t be in business very long.”

This longevity is also testament to a workplace culture that values its employees and champions innovation that drives efficiency, noted [Gina Bonatti](#), Chief of Staff and Marketing at iMasons.

The digital infrastructure industry stands to benefit from stronger relationships with established manufacturers of the equipment and components that make data centers run, she added.

“We want to make this industry better for people and for the impact that it’s having on our planet,” she said. “That’s why it’s so important that manufacturers like Southwire get involved and actively participate in the iMasons community, helping to find creative solutions that drive efficiency through innovation.”



Wired for Innovation and Efficiency

Innovation is core to how Southwire stays in business, Wynn noted. For example, the company recently released to market a composite conductor called C7® cable for overhead transmission lines with double the transmission capacity of traditional steel core wires.

This innovation has benefits for stakeholders upstream and downstream of the transmission line, including power plants and data centers.

The most-valuable asset that a utility owns is the right-of-way for power transmission lines, Wynn explained. Increasing the amount of electricity that can be routed along that right-of-way better utilizes that resource and increases its value.

“Think about it this way: On a highway, if you could safely stack multiple thoroughfares on top of each other to get more traffic through it, then that would be highly valuable,” he said. “Southwire’s composite C7® material does just that, it increases the transmission load.”

Unlocking increased power delivery capacity on existing power transmission rights-of-ways means that utilities can potentially avoid building new transmission lines through a community to serve the increasing load from data centers, he said. This can relieve community concerns about new infrastructure, which accelerates data center project approvals and timelines.

Inside data centers, Southwire teams provide developers guidance on wire and cable products that can increase the efficiency of data center operations, work around supply chain constraints and accelerate progress on sustainability initiatives.

For example, today, an industry leading 93% of Southwire’s wire and cable product categories contain a third-party verified environmental product declaration (EPD), which allows Southwire’s clients to more accurately measure and report the carbon emissions throughout their value chain, known as Scope 3 emissions under the Greenhouse Gas Protocol.

“Southwire gives us a great example of how transparency drives decarbonization. There aren’t many providers that are willing to share this information—and they are. That makes a real difference.”

— Ana Franco,
Regional Director, Americas,
Infrastructure Masons





Wired for Innovation and Efficiency

In addition, Southwire's research and development arm is constantly evolving the product portfolio to cut waste and increase efficiency. For example, one program is investigating more sustainable forms of insulating compounds – the material that protects the copper and aluminum conductors inside wire and cable.

"At the end of the day, we aim to meet the goal of being good stewards of the communities where we work and live and add tangible value to the companies that are doing the same," Wynn said.

[Ana Franco](#), Regional Director, Americas, at iMasons, said Southwire combines deep technical experience on what it takes to keep electrons flowing throughout the digital economy with a genuine commitment to efficiency, which is a model for the entire digital infrastructure industry to replicate.

"Southwire gives us a great example of how transparency drives decarbonization," she said. "There aren't many providers that are willing to share this information—and they are. That makes a real difference."

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Left to right: Santiago Suinaga, Chief Executive Officer, iMasons; Jack Graves, Vice President Strategic Verticals, Southwire; Brandon Ellis, Director, Data Center Data Center, Southwire.



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