

F R O S T & S U L L I V A N

2024 TECHNOLOGY INNOVATION LEADER

*IN THE GLOBAL
NETWORK-AS-A-SERVICE
INDUSTRY*

F R O S T & S U L L I V A N

BEST
2024 PRACTICES
AWARD



Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Console Connect excels in many of the criteria in the global network-as-a-service (NaaS) space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Business Impact</i>
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Stage Gate Efficiency	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

Introducing Network as a Service

NaaS is the modern business model for service providers to quote, sell, and manage network services for enterprises and wholesale providers. The model enables network operators to deliver a cloud-like consumption model with a frictionless customer experience.

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– Stephen Thomas
Senior Industry Director

Frost & Sullivan’s analysis shows that Console Connect is a leader in the space and the reason why Hong Kong-based network services provider PCCW Global acquired the company in 2017. Console Connect is the brand and platform name PCCW Global uses for its NaaS service. Console Connect allowed PCCW Global to expand its service portfolio and get a running start on automating its MPLS and Internet Protocol (IP) networks.

Console Connect serves all major cloud providers, including Amazon Web Services (AWS), Google Cloud, Microsoft Azure, Oracle Cloud, and IBM Cloud. The platform supports on-demand Layer 2 and 3 connections to over 80 cloud regions via 160 cloud on-ramps worldwide.

Console Connect Started with Cloud Interconnects and Remains Committed to Continuous Innovation

Console Connect was a Silicon Valley start-up that has offered NaaS solutions since 2014. Before the 2017 PCCW Global acquisition, Console Connect was among the first to commercialize direct connections with cloud hyperscalers AWS, Google Cloud Platform, and Microsoft Azure. We also find that many of today's NaaS platforms are only now positioning multi-cloud networking as an option. In contrast, Console Connect established this early in its roadmap.

Frost & Sullivan finds that the synergies between the two companies are realized in the platform today. PCCW Global brought an international top 10 IP network,¹ and Console Connect positioned an established NaaS platform over the IP network and MPLS network. Console Connect additionally brought the intellect to automate network services, accelerating PCCW Global's NaaS strategy.

The continuous innovation made a better overall platform with the sum of the two parts. Additional innovation allowed them to expand past the 1,000 data centers Console Connect has on the platform and offer local circuits to enterprise locations as well via the platform in 12 markets. Console Connect is not just a NaaS provider. Its Edge SIM service is innovative as it does not use the public internet, providing more secure and reliable transport on its own backbone for Internet of Things applications.

Console Connect Shows Commitment to Creativity

To support a cloud-like experience, Console Connect decoupled network services procurement and provisioning. Console Connect and other NaaS providers aim to make consuming networks as easy as their compute and storage counterparts. Therefore, it created a pay-as-you-go model where a network engineer with a corporate card could provision services immediately, and the traditional way of getting financial approval first via their own organizational structure and then provisioning the service needed.

Console Connect further achieved technology innovation by augmenting automation with blockchain technology. With its partners, Console Connect created a common service inventory; each carrier must agree via the blockchain to simplify invoice settlement. Using blockchain—a distributed ledger-based technology—creates an inventory-based verification system from each party's systems. Console Connect then puts this accurate inventory into the distributed ledger and builds a smart contract between the parties that contains the pricing of the shared services. Therefore, all parties must agree on the inventory, pricing, and terms before they can validate them in the blockchain. This guarantees accurate inventory and, most importantly, undisputed invoicing. Leveraging blockchain and smart contracts to enable accurate inventory and invoicing demonstrates Console Connect's commitment to solving problems creatively with newer Web 3.0 technologies.

¹ <https://asrank.caida.org/asns>

Console Connect Realizes Commercialization Success

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Senior Industry Director
Network Services

Console Connect interconnects over 1,000 data center locations in 55 countries worldwide and has direct connectivity to more than 20 internet exchange points. The company also offers interconnectivity in 1, 10, and 100 Gbps speeds/ports.

Its success has attracted some outside investment. While PCCW Global acquired Console Connect in 2017, Infratil —an investor in digital and social infrastructures — agreed to buy an 80% stake in Console Connect from HKT for \$160 million on July 10,

2023. Infratil’s investment announcement, which details its due diligence, put Console Connect at a \$200 million enterprise value.²

Console Connect Brings Operational Efficiencies

As noted, PCCW Global purchased Console Connect mainly to automate PCCW Global’s MPLS and IP networks and move it ahead in the NaaS space. Automation is an efficiency improvement. Internal teams use the NaaS platform to automate provisioning services to reduce manual configurations and aid the change management process. The quote-to-cash process is the real winner as it eliminates disputes with the smart contract and blockchain implementation, as mentioned previously.

As a result, the accuracy of the information shared between players via the Console Connect account increased by 30%. Furthermore, as part of a blockchain, it provides a flawless audit trail that eliminates disputes. The current implementation has this blockchain data settlement between three of Console Connect’s top network partners. Console Connect envisions doing this with its top 100 potential partners.

Frost & Sullivan applauds Console Connect for its industry-first and forward-thinking technology innovation that many network operators will follow, not just the three they partnered with to build this innovation.

Console Connect Automates Invoicing for the Financial Benefits of Settlement Charges

The Console Connect platform has clear financial benefits for carriers and customers. It was noted in a recent NaaS meeting of the industry/standards body MEF that carriers trade hundreds of millions of dollars of services. Smart contract implementation removes the need for a dispute process because the blockchain validates the inventory and then the pricing via the smart contract, enabling electronic invoicing to be flawless and indisputable. Based on the estimated 30% increase in data accuracy, Frost & Sullivan estimates the process avoided as much as \$30 million in disputes. In addition, as NaaS itself is a frictionless buying experience, the streamlined ability to procure, deliver, and invoice lowers costs associated with the whole quote-to-cash process.

Console Connect Realizes the Growth Potential of NaaS

² <https://infratil.com/news/strategic-investment-in-console-connect/console-connect-investor-presentation/>

NaaS is intended to make life easy for the enterprise and the carrier by automating back-end functions. Console Connect is expanding its platform to cover additional functions; for example, users can easily adapt the blockchain for invoice settlement to calculate and issue service level agreement credits.

In addition, Console Connect is eyeing the ability to integrate this offering with its software defined solutions and cloud partners for a full front-to-back digitalized process. Console Connect reports a use case with major client Syntropy, where it performed a large (314 servers) Software Defined Network (SDN) implementation and then applied the Console Connect blockchain platform for automated services, from ordering to a smart contract that releases payment. These early implementations demonstrate how the Console Connect platform can be applied outside the carrier ecosystem to benefit partners and clients.

Conclusion

As a start-up, Console Connect was able to rethink the delivery of network services. It demonstrates how software enables network operators to be nimbler and more creative. Console Connect is shaping the industry with automation, API integrations, and clever use of blockchain. Frost & Sullivan positions Console Connect as a forward thinker among NaaS platform providers with its use of blockchain to resolve the industry problem of data settlement.

For its strong overall performance, Console Connect is recognized with Frost & Sullivan's 2024 Global Technology Innovation Leadership Award in the network-as-a-service industry.

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Leadership Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Award Analysis

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

