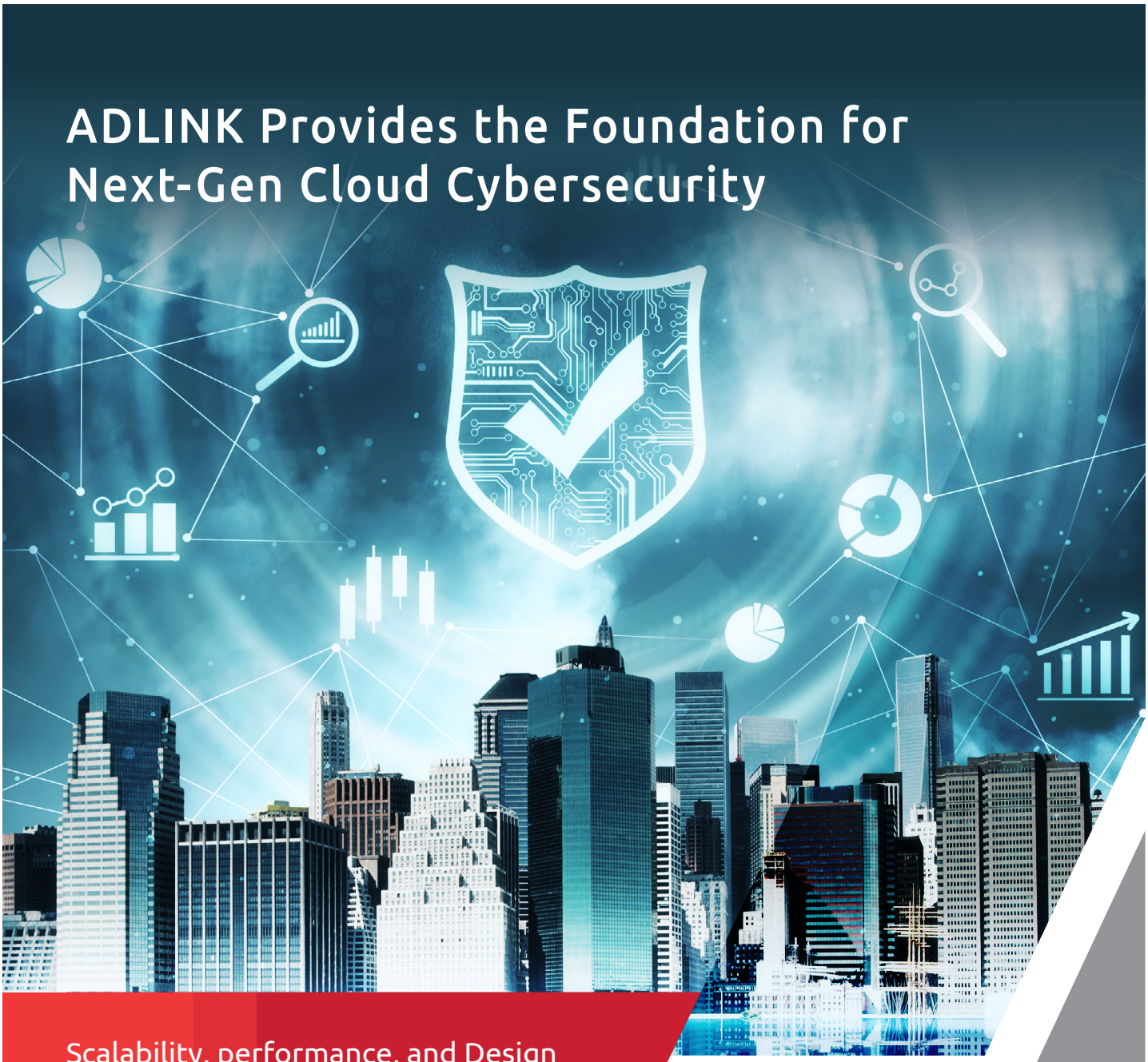
ADLINK
LEADING EDGE COMPUTING

ADLINK Provides the Foundation for Next-Gen Cloud Cybersecurity



Scalability, performance, and Design manufacture service (DMS) optimization combine as the foundation for ADLINK's security infrastructure solutions

Solution Brief

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ADLINK Provides the Foundation for Next-Gen Cloud Cybersecurity



Headline-grabbing security hacks have long been the lament of global, 21st century enterprises. By 2021, the cost of an average data breach exceeded USD 4 million, and that trend keeps rising. In this decade, though, public sector cybersecurity costs may even outpace their private sector counterparts, as "cold" cyberattacks against nations can prove just as economically crippling as physically violent alternatives.

Any organization with data to protect finds itself caught between the horns of increasing cyberattack frequency and sophistication and the ever-rising volume of global data, now compounding at 23% annually. Maintaining security against these challenges, especially in a world increasingly reliant on cloud-based services, requires cybersecurity infrastructure able to meet current demands and adapt to future needs — and many groups feel unready. According to a Tanium survey of 345 cybersecurity professionals, nearly two in three felt moderate to extreme surety that they would be the subject of a successful cyberattack in the coming year.

Whether viewed for private or public purposes, cybersecurity and the ability to guard against digital aggression has never been more important. Some of this burden falls on the shoulders of security solution providers, who must pick their partners with the utmost care. Significantly, one of the world's top cybersecurity vendors approached ADLINK for help in supplying hardware platforms able to meet these requirements. This collaboration illustrates the elements needed for a successful cloud-scale security infrastructure.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Customer Applications and Challenges

The cybersecurity client came to ADLINK with many years of market prominence, even to the point of designing its own application-specific processors and system-on-chip (SoC) devices. The company finished the last decade with 20% year-over-year growth. Much of this success derived from addressing rising security needs specifically in Internet of Things (IoT), operational technology (OT), 5G, and software-defined wide-area network (SD-WAN) applications.

Naturally, that success came with challenges, which in turn resulted in a priorities list that would help keep the company and its next-generation hardware offerings flourishing in the current decade.

Platform quality

In the face of rising data volumes and concurrent end-user demand, system performance and stability are paramount. A security platform prone to throughput bottlenecks or falloffs in communication quality cannot deliver the security experience modern cloud-scale applications demand.

Quick, worldwide support

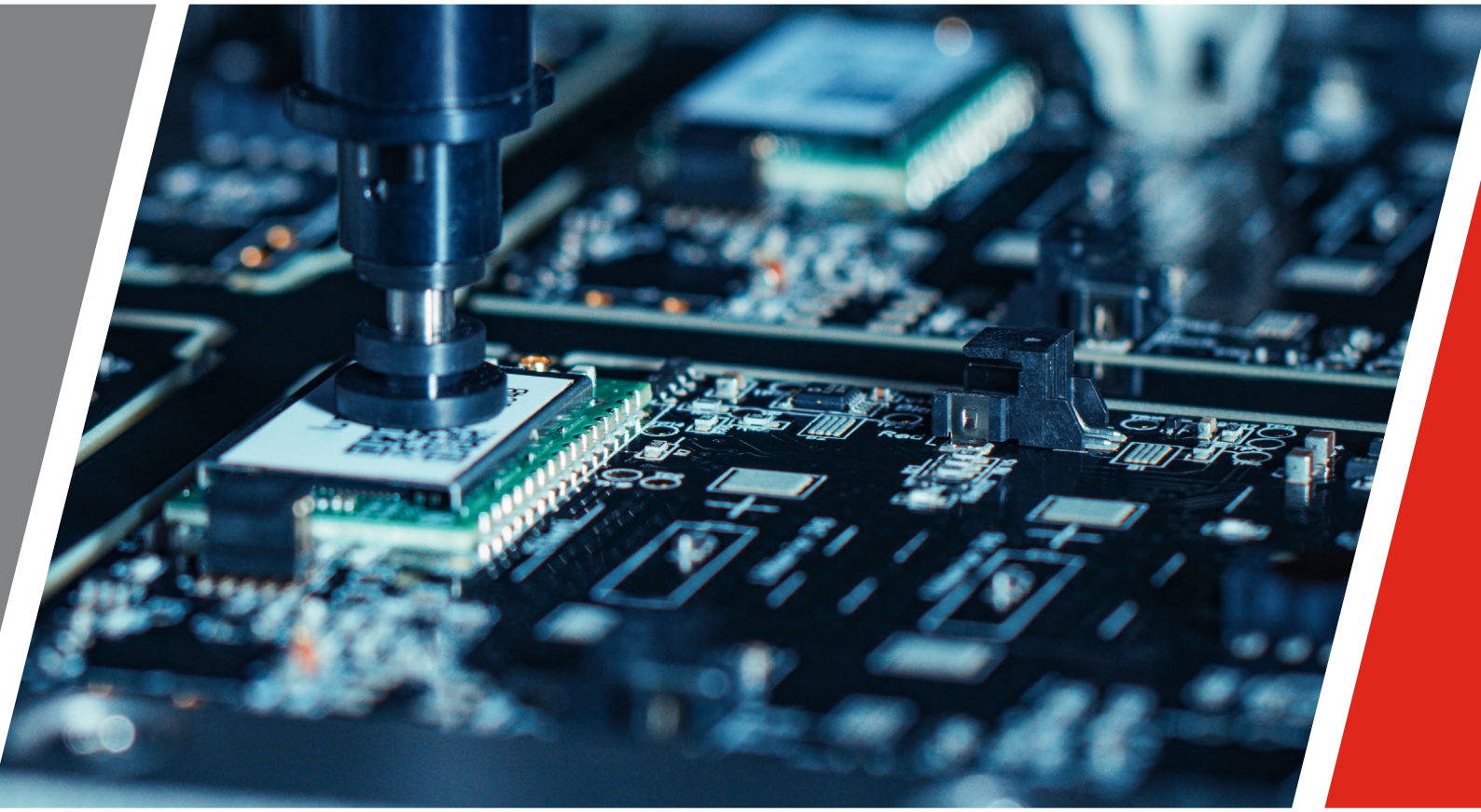
Few if any fields have less tolerance for support delays than security. Every extra hour needed for issue resolution can cost millions of dollars or literally sacrifice lives. The cybersecurity customer demanded a partner with global reach in its local support network and proven, fast responsiveness whenever and wherever adopter issues arise.

Stable collaboration

Maintaining partnerships is almost as difficult as forging them. It requires understanding of mutual objectives and limitations as well as a perpetual willingness to engage in active, honest communication. Many companies find such openness difficult. Also, collaboration-friendly corporate cultures can change over time, both for good or ill. The cybersecurity client needed to trust that its platform partner(s) would remain committed to collaboration for the long term.

Integration flexibility

Understandably, the cybersecurity space is prone to rapid change. As new risks emerge, solution providers must respond with alacrity, yet without sacrificing quality. This demands robust engineering and integration capabilities, including when faced with solution building blocks from multiple sources. The cybersecurity provider needed a partner able to adapt and qualify changes, even up to the point of product overhaul, while balancing the lowest possible development costs with rapid time to market.



Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000



12U
All in one Network Packet Broker

4U
High Compute Performance & Throughput

2U
Rich I/O

ADLINK's Solution

The cybersecurity customer has built its reputation on a product line that emphasizes integration, automation, efficiency, self-healing and redundancy, and fast threat response. Some of this capability stems from software and its proprietary silicon portfolio, but a large amount also depends on the hardware infrastructure underlying those applications and chips. That infrastructure must excel as much in the datacenter as at the network edge. It should also interface with external cloud resources as well as form the backbone for an organization's own secure cloud.

The customer found ADLINK with an already well-developed product family ready for such purposes.

ADLINK CSA Network Appliances

ADLINK created its CSA line for a world in need of flexible network security and applications servers able to accommodate bandwidth demands far beyond what legacy solutions can accommodate. Within the security space, the CSA targets a wide range of functions, many of which are often served by dedicated appliances.

ADLINK CSA systems mid to high-end 2U, 4U and 12U form factor designs to provide all-in-one infrastructure able to address many of these security tasks into a single orthogonal appliance. In fact, the cybersecurity customer wanted the ability for its offerings to identify thousands of applications within traffic and perform deep inspection and policy enforcement on that traffic in real time. With its modular architecture and formidable array of compute, networking, and I/O options, CSA systems can be tailored to any cloud security need. Off-the-shelf models include 2U to 12U with multiple Xeon E5 variants. ADLINK Network Appliances deliver a range of SFP+ and Ethernet connectivity for the greatest I/O flexibility and performance.

The most recent 12U CSA-7608 goes even further by leveraging Intel's Tofino™ programmable Ethernet switch for up to 6.4 Tbps of bandwidth for 100 Gbps of reliable bandwidth across the system backplane. With eight computing nodes, two programmable switch nodes, and two optional management nodes, the CSA-7608 delivers the incredibly fast, reliable performance needed for today's most demanding software-defined network and cybersecurity solutions.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

ADLINK Design Manufacturing Service Plus (DMS+), Made to the Client's Order

ADLINK provides Design Manufacturing Service (DMS) with extensive in-house design and development capabilities, the Tier-one cybersecurity client opted to have ADLINK take the experience and refinement behind the CSA line and pour it into new systems that would dovetail better with its existing product lines. Ultimately, the client had ADLINK design a range of security models within its product hierarchy, all of which integrated the client's various processor offerings. ADLINK helped this customer to create serveral high-end platforms, one of them is with a range of 40/100 Gigabit Ethernet interfaces, as well as 1/10 GbE SFP/SFP+ slots and RJ45 GbE. The system targets next-generation firewall (NGFW) functionality for large enterprises and services providers, with threat protection reaching 20 Gbps bandwidth, NGFW at 28 Gbps, and IPS at 32 Gbps. Another one is with similar I/O connectivity but much higher load capacities, extending even to 100 Gbps (threat protection), 150 Gbps (NGFW), and 170 Gbps (IPS).

Stating that "ADLINK made systems for the client's cybersecurity offerings" does no justice to the process behind the final results. The customer came to ADLINK in part due to its 25 years of technical domain knowledge and design experience in enterprise- and carrier-class servers. There is little room for anything less than perfection in security systems, and choosing the right technologies matters as much as implementing those technologies in ways that promote maximum performance and reliability. For example, ADLINK has pushed to advance its I/O performance through successive PCI Express generations. Many competitors still feature systems based around PCIe Gen 3. Meanwhile, ADLINK now advances designs using PCIe Gen 5, but always with firm control over interface quality, stable transmission speeds, and the lowest possible data packet loss rates.

Because standards and implementation methods change constantly, ADLINK takes care to participate in a broad range of industry consortia and associations, including those hosted by primary component vendors, such as Intel and NVIDIA. Not only does this participation allow ADLINK access to emerging industry standards while they're still forming, it also provides additional deep channels to support on components, standards, and optimization methods. In turn, ADLINK can pass this expertise on to customers, including this particular cybersecurity client.

The client also made extensive use of ADLINK's verification capabilities. With multiple development and testing labs around the world, ADLINK invests heavily in precision equipment and staff versed in rigorous testing and control practices. Particularly in the security space, this level of qualification and validation is essential.

Finally, the cybersecurity customer valued ADLINK's ability to support various business models and demand levels. With products in multiple families targeting different markets and application sets, the customer expected volume and specific model demand to vary significantly. However, because ADLINK is very vertically integrated and has high control over its production chain, accommodating this variety became easy, even on a global deployment scale.



Conclusion

Through close collaboration and extensive pre- and post-development support, ADLINK provided a range of cybersecurity server platforms for the client that now ship and install around the world. ADLINK met the customer's time-to-market and cost requirements while delivering standards-based solutions that fully integrated the client's proprietary accelerator chips and full software stack. ADLINK continues to help support these solutions through its extensive support network across many geographies. All told, this ADLINK partnership allowed the customer to deliver higher-value cloud security solutions to a wider selection of organizations, thereby expanding its market presence helping end-users to stay further ahead of tomorrow's looming digital risks.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Head Office

ADLINK Technology, Inc.

No. 66, Huaya 1st Road, Guishan District
Taoyuan City 333411, Taiwan
Tel: +886-3-216-5088

www.adlinktech.com

Worldwide Offices

Ampro ADLINK Technology, Inc.

6450 Via Del Oro, San Jose, CA 95119-1208, USA
Tel: +1-408-360-0200
Toll Free: +1-800-966-5200 (USA only)
Fax: +1-408-600-1189
Email: info@adlinktech.com

ADLINK Technology (China) Co., Ltd.

上海市浦东新区张江高科技园区芳春路300号 (201203)
300 Fang Chun Rd., Zhangjiang Hi-Tech Park Pudong New Area, Shanghai, 201203 China
Tel: +86-21-5132-8988
Fax: +86-21-5192-3588
Email: market@adlinktech.com

ADLINK Technology Beijing

北京市海淀区上地东路1号盈创动力大厦E座801室 (100085)
Rm. 801, Power Creative E, No. 1 Shang Di East Rd. Beijing, 100085 China
Tel: +86-10-5885-8666
Fax: +86-10-5885-8626
Email: market@adlinktech.com

ADLINK Technology Shenzhen

深圳市南山区科技园南区高新南七道数字技术园A1栋2楼C区 (518057)
2F, C Block, Bldg. A1, Cyber-Tech Zone, Gao Xin Ave. Sec. 7 High-Tech Industrial Park S., Shenzhen, 518054 China
Tel: +86-755-2643-4858
Fax: +86-755-2664-6353
Email: market@adlinktech.com

ADLINK Technology Singapore Pte Ltd.

1008 Toa Payoh North, 07-17/18 Singapore 318996
Tel: +65-6844-2261
Fax: +65-6844-2263
Email: singapore@adlinktech.com

ADLINK Technology Singapore Pte Ltd. (Indian Liaison Office)

#50-56, First Floor, Spearhead Towers
Margosa Main Road (between 16th/17th Cross)
Malleswaram, Bangalore - 560 055, India
Tel: +91-80-42246107, +91-80-23464606
Fax: +91-80-23464606
Email: india@adlinktech.com

ADLINK Technology Japan Corporation

〒101-0045 東京都千代田区神田鍛冶町3-7-4 ユニゾ神田鍛冶町三丁目ビル4F
Unizo Kanda Kaji-cho 3 Chome Bldg. 4F,
3-7-4 Kanda Kajicho, Chiyoda-ku,
Tokyo 101-0045, Japan
Tel: +81-3-5209-6001
Fax: +81-3-5209-6013
Email: japan@adlinktech.com

ADLINK Technology Korea Ltd.

경기도 용인시 수지구 신수로 767 A동 1503호 (동천동, 분당수지유타워) (우) 16827
A-1503, U-TOWER, 767 Sinsu-ro, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea, 16827
Toll Free:+82-80-800-0585
Tel: +82-31-786-0585
Fax: +82-31-786-0583
Email: korea@adlinktech.com

ADLINK Technology, Inc. (Israel Liaison Office)

MIXER Herzliya (Building B, 9 Floor)
3 Arik Einstein st., Zip code 4610301
Herzliya, Israel, P.O.Box - 351
Tel: +972-54-632-5251
Fax: +972-77-208-0230
Email: israel@adlinktech.com

ADLINK Technology GmbH

Hans-Thoma-Straße 11
D-68163 Mannheim, Germany
Tel: +49 621 43214-0
Fax: +49 621 43214-30
Email: germany@adlinktech.com

Ulrichsbergerstraße 17
D-94469 Deggendorf, Germany
Tel: +49 991 290 94–10
Fax: +49 991 290 94–29
Email: germany@adlinktech.com

ADLINK Technology, Inc. (French Liaison Office)

Bâtiment Thalès - Parc des Algorithmes,
Route de l'Orme des Merisiers,
91190 SAINT AUBIN, France
Tel: +33 (0) 1 60 12 35 66
Fax: +33 (0) 1 60 12 35 66
Email: france@adlinktech.com

ADLINK Technology, Inc. (UK Liaison Office)

First Floor West Exeter House,
Chichester fields Business Park Tangmere,
West Sussex, PO20 2FU, United Kingdom
Tel:+44-1243-859677
Email: uk@adlinktech.com

All products and company names listed are trademarks or trade names of thier respective companies.
All specifications are subject to change without further notice.
All Updated by May, 31th, 2022. ©2022 ADLINK Technology, Inc. All Rights Reserved.

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000