CITIC Telecom CPC and ASTRI Transform Customer Experience with AR-based Operations and Maintenance Solution

Launch of DataHOUSE AR Remote Hand Service to streamline installation, maintenance and troubleshooting processes, boosting managed services capabilities

HONG KONG, 24 September 2020 – CITIC Telecom International CPC Limited (CITIC Telecom CPC), a wholly-owned subsidiary of CITIC Telecom International Holdings Limited (SEHK: 1883) and the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) have introduced a jointly developed Augmented Reality (AR) solution designed to transform field engineers' operations and maintenance processes. Branded DataHOUSE AR Remote Hand Service (AR Remote Hand), the solution leverages wearable Augmented Reality (AR) technology and brings CITIC Telecom CPC's field engineers and its customers to a new era, enabling them to slash the time and cost of troubleshooting and maintenance for achieving better results.

The AR Remote Hand Service employs AR glasses to stream real-time intelligence, troubleshooting logs, graphics and encrypted data from back-end systems to on-site engineers and maintenance staff, boosting field productivity by up to 50%. By wearing the glasses, field engineers do not have to stop their work to communicate with back-end support teams via a laptop or phone, nor to refer to a paper manual. The AR Remote Hand provides field engineers with a heads-up display for remote visualisation in real time as they install, maintain or troubleshoot equipment, thus speeding up the whole process.

Global-Local Service Enabler

CITIC Telecom CPC and ASTRI share the same vision in driving innovation and enhancing customer experience. Through the partnership, both companies not only take the latest AR technology to the next level, but also bring those benefits to a wide range of industries.

The new DataHOUSE AR Remote Hand Service meets the growing customer demand for support in managing the increasing complexity and diversity of equipment used today in data centres via the state-of-the-art solution. AR Remote Hand enables field engineers across multiple locations to overcome the challenges of multiple languages and skillsets in multi-technology environments; as well as to manage installation and maintenance issues more efficiently and cost effectively, resulting in improved customer satisfaction.

With the DataHOUSE AR Remote Hand Service, remote support teams share the same view as on-site engineers which reduces the need for and expense of travel time.   This ability to work effectively from remote locations is also helping CITIC Telecom CPC's customers and staff stay safe in the midst of the COVID-19 pandemic. To ensure safe operations and maintain service infrastructure availability by the global remote service support teams, CITIC Telecom CPC is using DataHOUSE AR Remote Hand Service in its China Data Center operations to assure regional customers' business operations continuity.

中信國際電訊(信息技術)有限公司
CITIC TELECOM INTERNATIONAL CPC LIMITED
20/F Lincoln House, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong
T: 852 2170 7101   F: 852 2795 1262   W: www.citictel-cpc.com

A member of
CITIC Telecom International

"We are delighted to see the results of our strategic partnership with ASTRI in the launch of AR Remote Hand Service," said Mr. Esmond Li, CEO of CITIC Telecom CPC. "The partnership has provided us with a solution that significantly strengthens our managed services offerings, greatly enhances the customer experience and is revolutionising the industry's operations and maintenance capabilities. DataHOUSE AR Remote Hand is an innovative remote maintenance service adopted in data centre scenarios, which leverages AR intelligent operations and maintenance technologies. This is only the first step and we will not stop here. Through collaborating more innovative thinking, we expect to enhance the service to cope with more scenarios and bring more value and better customer experience to enterprises."

"Our strategic collaboration with CITIC Telecom CPC has demonstrated the success in leveraging next generation technology in real-life applications that benefit our people and society, in this case smart industrial applications and field service management solutions for Hong Kong enterprises," said Mr. Hugh Chow, CEO of ASTRI. "We are delighted that our applied research has proven effective in enhancing CITIC Telecom CPC's customer experience, improving operational efficiency and boosting business resilience, especially during the COVID-19 pandemic. ASTRI, as a bridge of innovation and technology, will continue to strive to create economic value and societal impact via technology transfer and commercialisation in building a smarter and safer Hong Kong."

In their collaboration, ASTRI focused on developing the software platform and customisation, while CITIC Telecom CPC provided related information and opinions based on its experience with business cases in various scenarios and applications. This ensured the solution could effectively address enterprise customers' needs across a range of industries. The result is a solution that offers a wide array of benefits in service provisioning and remote location visualization and communication capabilities:

Intelligent Service Provisioning without Boundaries

Field engineers managing complex equipment and procedures for on-site service previously required significant time and effort which reduced efficiency. Thanks to the innovative wearable AR technology, the AR Remote Hand service now substantially reduces the time and cost for field service provisioning while boosting capabilities. Customers can solve problems faster while minimising downtime and expense.

1.) Intuitive AR-Guided Installation, Troubleshooting and Maintenance: With AR Remote Hand, field engineers recognise any device with a designated QR code and access real-time intelligence, graphics, and encrypted data from back-end systems streamed on-site. Field staff can access virtual step-by-step guides or even 3D manuals via AR glasses, without the need to interrupt work to check information on a laptop or in a manual.

2.) Historical Records Analysis: Using a pre-set routine (e.g. gestures), on-site engineers can review a device's historical record (e.g. customers' network traffic or cloud CPU history), to speed up data analysis and troubleshooting, while cutting downtime and cost.

3.) Seamless Communication and Collaboration with Back-end Support: Field engineers previously communicated with back-end support via email or phone, making it difficult to describe a troubleshooting situation. Removing distance and language barriers, back-end engineers now view real-time images streamed via AR glasses through an AR operations console, improving operational speed and quality. Its powerful video conferencing feature also offers engineers instant support and fosters off-site collaboration between global operations and maintenance teams. In addition, back-end engineers can give field engineers clear instructions via 3D AR labelling.

AR-Enabler Acts as Customers' Remote Hands

While enterprises promote cross-regional operations and continuously develop businesses, the kinds of IT equipment used are diversified with fast upgrades, making daily IT operation and maintenance management difficult. In the past, maintenance of IT equipment was done by on-site professionals who would need to investigate and analyse the issues on-site in order to identify the solutions. However, the experience and capability of IT staff can vary. When an enterprise's IT and maintenance staff face situations they cannot fix or when its professional engineers are not able to go for on-site support, urgent maintenance can be delayed, compromising the enterprise's efficiency and putting it at risk.

In exceptional circumstances, such as the current pandemic, it's difficult for enterprises' IT staff to travel to data centres and manage their equipment. Equipped with the latest AR glasses development, CITIC Telecom CPC's DataHOUSE AR Remote Hand serves as customers' remote hands. It not only shows the status of on-site equipment as customers watch in real time from offices or other locations, but also lets customers to provide live instructions to CITIC Telecom CPC's on-site engineers as they troubleshoot equipment issues without physically being in the data centre.

"At CITIC Telecom CPC, we are constantly innovating to improve the customer experience," said Mr. Daniel Kwong, Chief Information and Innovation Officer of CITIC Telecom CPC. "We plan to extend the AR Remote Hand service for further customer use and will enlarge the list of equipment support. Adding AI applications for the AR glasses will be the next milestone as we work to deliver even more intelligent diagnoses. For example, when a field engineer sees the status of the target-fixing equipment through the AR glasses, they will be shown a number of possible causes for the problem, with each cause ranked with a percentage according to how likely it is to be the source of the problem."

Game-Changing Innovation in Algorithm Design

Innovation Never Stops. The innovative AR Remote Hand solution is the result of the hard work of CITIC Telecom CPC's data scientists and R&D experts based in Chengdu, Guangzhou and Hong Kong. In addition to developing the solution using AR technology, CITIC Telecom CPC's innovation team recently received an award that highlights its engineers' expertise in data science and algorithm design.

中信國際電訊(信息技術)有限公司
CITIC TELECOM INTERNATIONAL CPC LIMITED
20/F Lincoln House, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong
T: 852 2170 7101   F: 852 2795 1262   W: www.citictel-cpc.com

A member of
CITIC Telecom International

CITIC Telecom CPC's Data Science professionals won the "Tianchi Big Data Competition" organised by Alibaba Group in a fierce competition with over 900 teams from industry leading companies and top universities. The team helped ELEME Inc., an online food delivery platform, to optimise their food ordering and delivery with better algorithms to provide the best routes for their riders with full consideration of the location of food stores, the time needed for food preparation, traffic on the rider's route, service coverage in delivery areas, peak hours for food ordering, and customer waiting times.

The judges expressed their impression of the team's innovative thinking and algorithm calculation results, not only to achieve the fastest delivery time but also the shortest extra waiting time for customers.   In the future, we expect the algorithm developed by the team will continue to add value for businesses of different industries and for the social community in a range of scenarios, such as optimising traffic flow or improving plane flight paths.

###

About CITIC Telecom CPC

We are CITIC Telecom International CPC Limited ("CITIC Telecom CPC"), a wholly owned subsidiary of CITIC Telecom International Holdings Limited (SEHK: 1883), serving multinational enterprises the world over by addressing their specific ICT requirements with highly scalable tailored solutions built upon our flagship technology suites, comprising TrueCONNECT™ private network solutions, TrustCSI™ information security solutions, DataHOUSE™ cloud data center solutions, and SmartCLOUD™ cloud computing solutions.

As a leading Global Local ICT Solutions Partner with worldwide footprint across East to West and native presence, we truly live our motto, "Innovation Never Stops." Being a preferred Digital Society Enabler, we lead our key markets at the forefront of pioneering ICT development, embracing AI, AR, Big Data, IoT, and other cutting-edge emerging technologies to transform technical potential into real-world value for our customers, helping them achieve higher productivity, agility, cost-efficiency, and ultimately, Digital Globalization.

As one of the first managed service providers in Hong Kong to achieve ISO 9001, 14001, 20000, 27001, and 27017 ICT-related certifications, CITIC Telecom CPC delivers on our superior quality commitment through a broad global self-managed infrastructure encompassing some of the highest growth markets in Asia, Europe and America, with over 140 points of presence, 18 Cloud service centers, 30+ data centers, and two dedicated 24x7 Security Operations Centers.

For more information please visit www.citictel-cpc.com

About ASTRI

The Hong Kong Applied Science and Technology Research Institute (ASTRI) was founded by the Government of the Hong Kong Special Administrative Region in 2000 with the mission of enhancing Hong Kong's competitiveness in technology-based industries through applied research.

ASTRI's research and development strategic focus covers five areas of applications: Smart City; Financial Technologies; Intelligent Manufacturing; Health Technologies; and Application Specific Integrated Circuits through its mandate as the Hong Kong branch of the Chinese National Engineering Research Centre.

Our core competence in various areas is grouped under five technology divisions, namely Artificial Intelligence and Big Data Analytics; Communications Technologies; Cybersecurity, Cryptography and Trusted Technologies; Integrated Circuits and Systems, and IoT and Sensors.

ASTRI seeks to develop technologies that address the needs of industries, institutions and communities in Hong Kong; as well as nurture talent to create economic value and societal impact. To date, ASTRI has transferred more than 750 technologies to the industry and owns more than 850 patents in the Mainland, the US and other countries.

For further information, please visit www.astri.org.

Media Contacts:

Rowena Leung
CITIC Telecom International CPC Limited
(852) 2170 7536
Email: rowena.leung@citictel-cpc.com

Jeanette Kwok
Hong Kong Applied Science and Technology
Research Institute
(852) 9103 0633
Email: jeanettekwok@astri.org

Barton Chui / Chloe Chan
Ogilvy Public Relations
(852) 9776 5647
Email: barton.chu@ogilvy.com /
chloe.chan@ogilvy.com

Please visit the link to download the hi-res photos.

Photo 1:

Mr. Esmond Li, CEO of CITIC Telecom CPC (left) and Mr. Hugh Chow, CEO of ASTRI announced the launch of "DataHOUSE AR Remote Hand Service", an AR solution jointly developed to transform field engineers' operations and maintenance processes.

(From the left) **Mr. Daniel Kwong, Chief Information and Innovation Officer of CITIC Telecom CPC, Mr. Esmond Li, CEO of CITIC Telecom CPC, Mr. Hugh Chow, CEO of ASTRI and Dr. Lucas Hui, Chief Technology Officer of ASTRI** pictured to celebrate the success of the partnership and AR-based Operations and Maintenance Solution.

中信國際電訊(信息技術)有限公司
CITIC TELECOM INTERNATIONAL CPC LIMITED
20/F Lincoln House, Taikoo Place, 979 King's Road, Quarry Bay, Hong Kong
T: 852 2170 7101   F: 852 2795 1262   W: www.citictel-cpc.com

A member of
CITIC Telecom International

Photo 3:

The "DataHOUSE AR Remote Hand Service" meets the growing customer demand for support in managing the increasing complexity and diversity of equipment used today in data centres via the state-of-the-art solution. It enables field engineers across multiple locations to overcome the challenges of multiple languages and skillsets in multi-technology environments; as well as to manage installation and maintenance issues more efficiently and cost effectively, resulting in improved customer satisfaction.