White Paper

Prepared on July 20, 2015

ALL SYSTEMS GO WITH APOLLO REMOTE SUPPORT

Apollo offers a new level of comprehensive, reliable remote technical support by placing technicians virtually at the customer site.

Reduce downtime, keep customers happier with Apollo.

CURRENT CHALLENGES FOR EQUIPMENT MANUFACTURERS

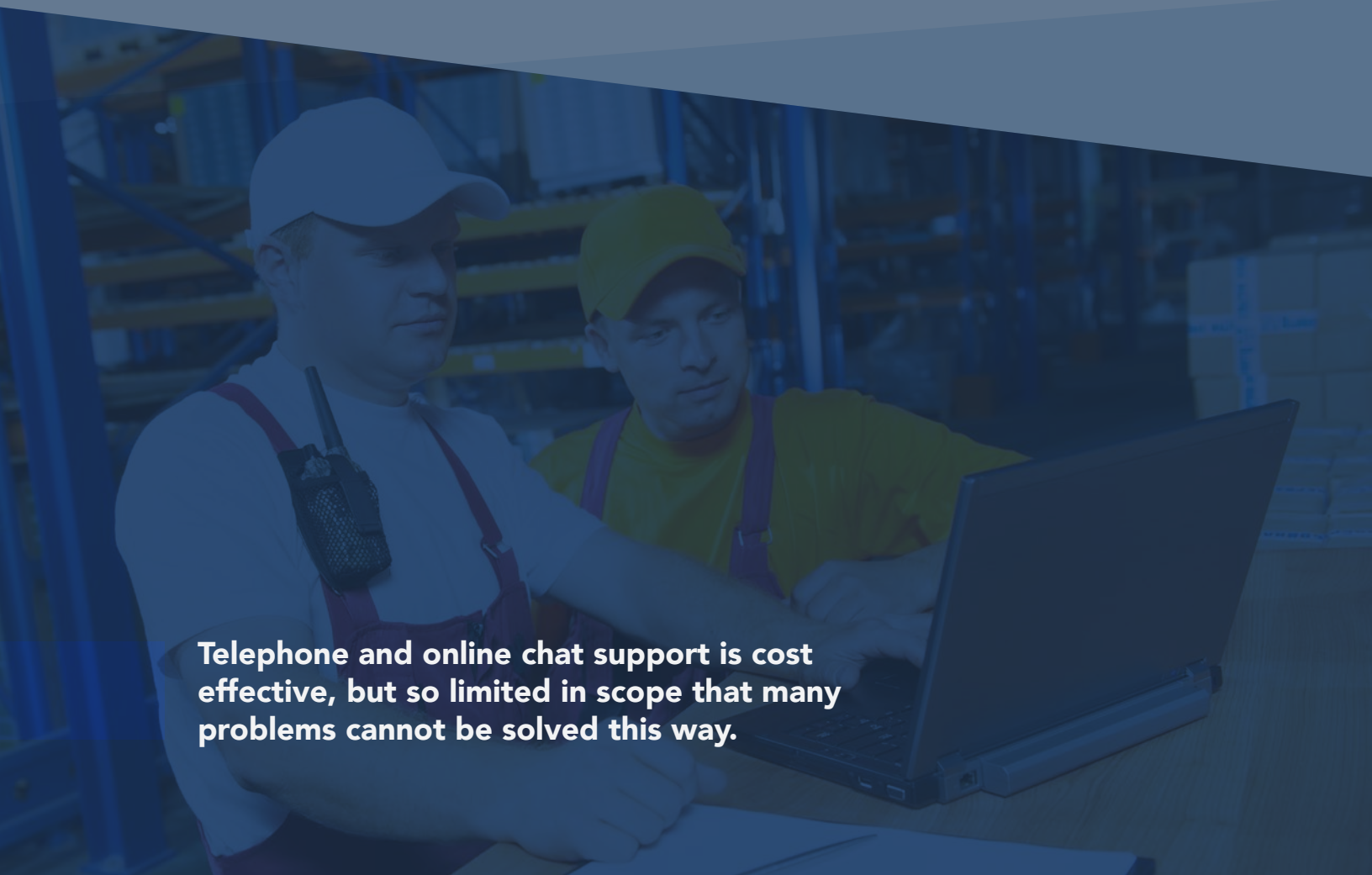
After the sale and installation of expensive industrial equipment, what are the biggest ongoing concerns for both the manufacturer and the customer?

The answer is simple:
equipment availability and performance.

Unscheduled downtime, reduced quality and poor performance due to equipment problems or failure can significantly lower overall equipment effectiveness (OEE), an important lean production metric measuring manufacturing productivity. For the customer, low OEE means lost business, income and opportunity. For the vendor, these problems result in low product satisfaction levels and reduced future sales.

RELYING SOLELY ON TRADITIONAL TECHNICAL SUPPORT = INCREASED EQUIPMENT DOWNTIME

Traditionally, equipment manufacturers have a technical support department to assist customers with equipment setup, operation, troubleshooting and problem resolution. This is accomplished remotely via telephone, online chat or other non-video methods. These types of remote technical support are cost effective for the company and convenient for the customer, but are so limited in scope that many problems cannot be solved this way.

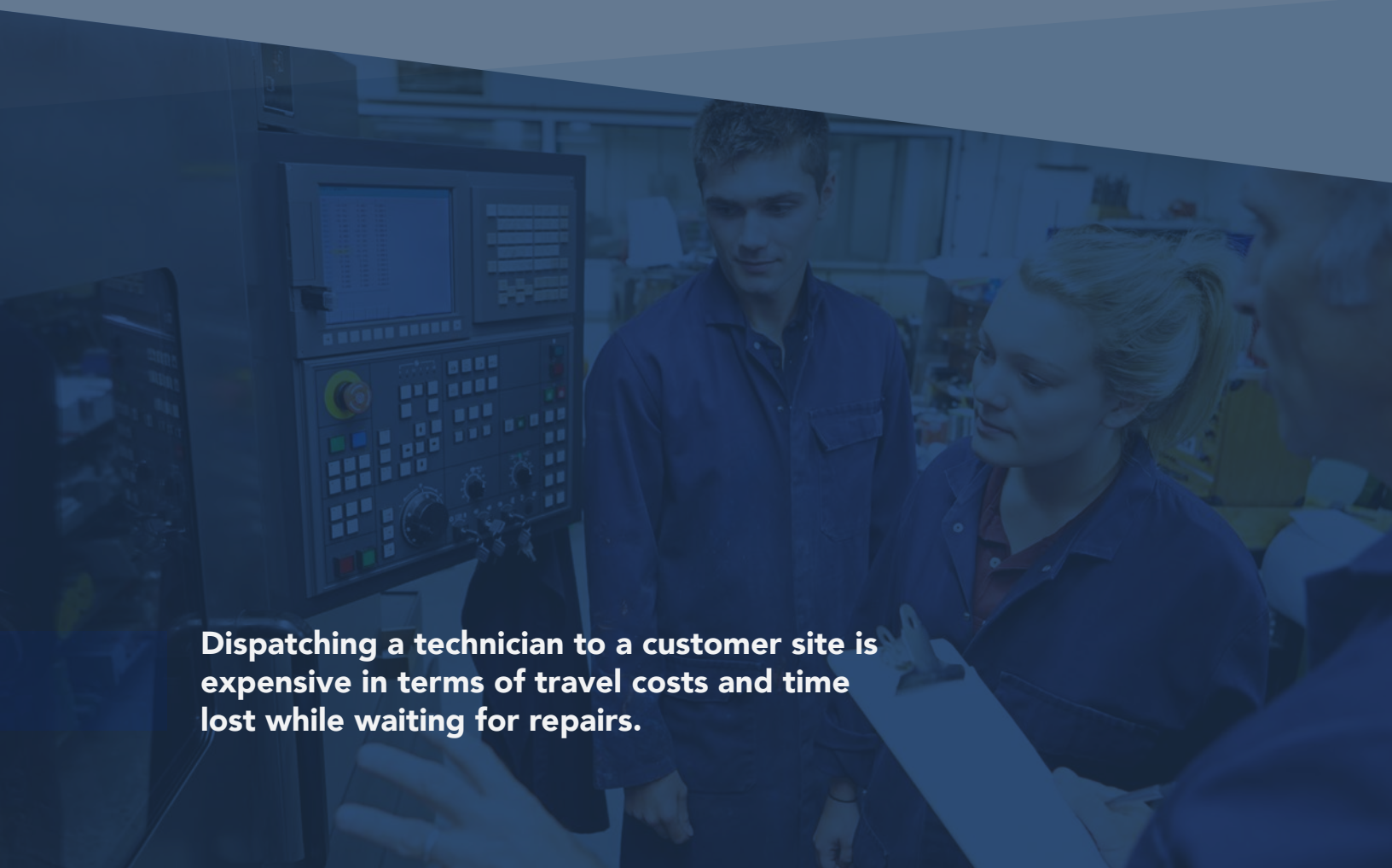


Telephone and online chat support is cost effective, but so limited in scope that many problems cannot be solved this way.

THE REAL COST OF ON-SITE SUPPORT

For cases in which a telephone or online discussion cannot resolve the problem, the customer must either return the product for analysis, or if that is not practical, a technician must be dispatched to the customer site. This is inconvenient and expensive for both parties in terms of expenses to ship the product or send the technician and in terms of valuable operating time lost while waiting for repairs.

Often, a technician travels great distances to the customer site only to discover, after examining the physical equipment setup and display screens, that the problem is relatively simple to fix. Thus, the actual time spent at the customer site may literally be minutes, but total downtime could be days. Furthermore, during the unproductive time spent traveling to and from the customer site, the technician (and his expertise) is unavailable to assist other customers.



Dispatching a technician to a customer site is expensive in terms of travel costs and time lost while waiting for repairs.

INTRODUCING APOLLO

APOLLO

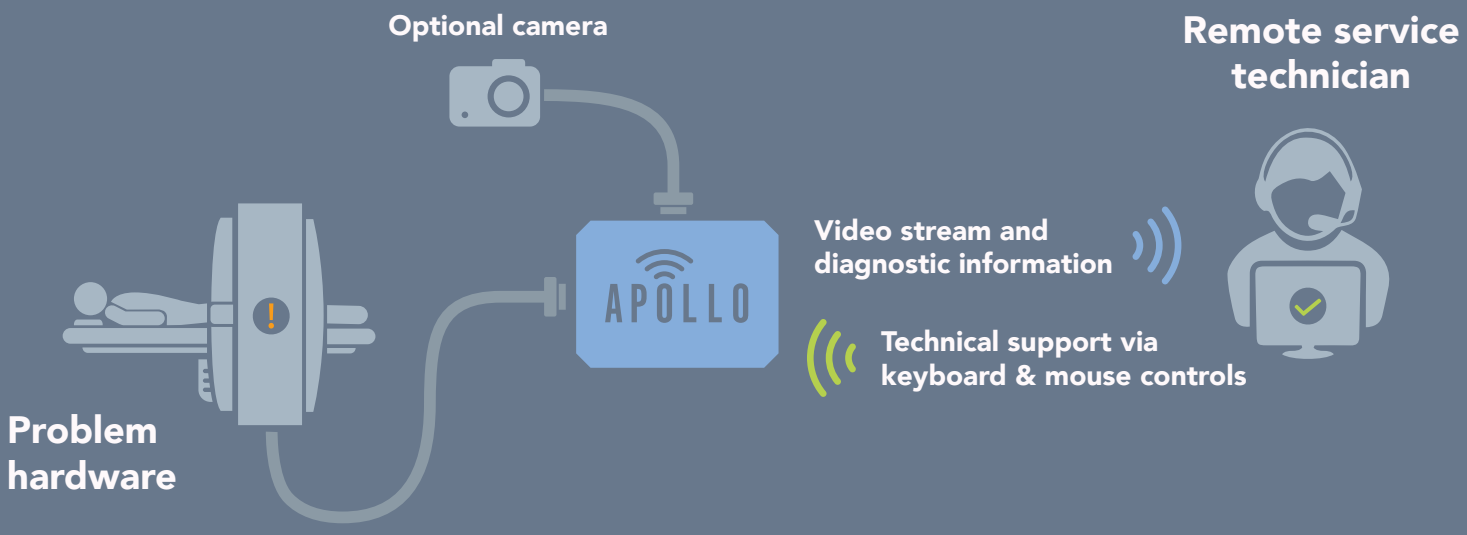
Apollo offers a new level of comprehensive, reliable remote support that eliminates the need for travel to customer site, solves problems faster for customers and frees technicians to help a larger number of customers.

THE APOLLO SOLUTION

Apollo places the technician at the customer site virtually. With visibility and control over the equipment's computer interfaces, and an optional video camera perspective, almost all problems can be solved remotely. Even those which previously would have necessitated the dispatch of a technician.

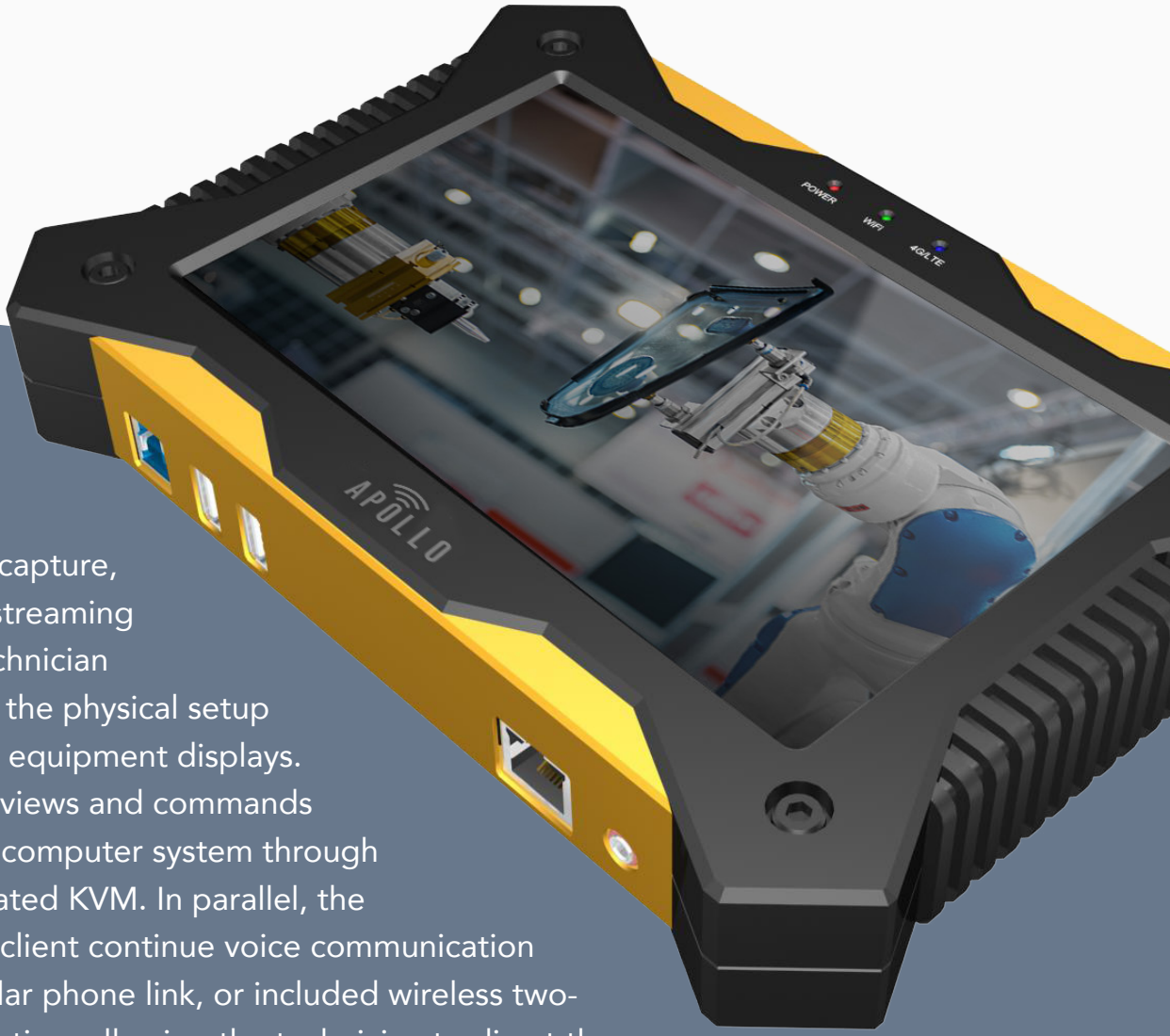
Apollo transmits real-time video of both physical setup and high-resolution display screens to the remote technician. During the remote support session, the technician also has remote keyboard control of the equipment and/or its interface computer. This puts the technician at the customer site in a virtual manner and allows problems to be solved as though the technician was physically present with the equipment. Both the customer and the company save time and money, and loss of valuable equipment operating time is minimized.

HOW APOLLO WORKS



THE HARDWARE

Apollo is small, portable and plug-and-play. Here's how it works. When an equipment manufacturer encounters a case which cannot be solved by traditional non-video technical support, the customer is asked to connect Apollo to the faulty equipment.



Using Apollo's capture, encoding and streaming solution the technician remotely views the physical setup and the client's equipment displays. The technician views and commands the controlling computer system through Apollo's integrated KVM. In parallel, the technician and client continue voice communication through a regular phone link, or included wireless two-way communication, allowing the technician to direct the customer to move the camera or connect the KVM to different pieces of equipment.

This high degree of interactivity provides unprecedented remote insight and control during service calls. The issue is quickly resolved, and the equipment is once again operational.

WHAT IS INCLUDED WITH APOLLO?

Apollo is totally self-contained. It is battery operated but features a backup power plug to avoid any unexpected surprises. Apollo easily connects to all common video interfaces (VGA, DVI and HDMI™) using adapters and cables that are included in the package. For hardware without video output, a serial port permits RS-232 and JTAG connections and monitors for alarms.

Apollo features built-in automatic 3G/4G/4G LTE connectivity to the Internet. If mobile coverage at the customer site is inadequate or unavailable, Internet connection can be made via built-in WiFi or Ethernet cable.

For wireless two-way communication a headset is included. Optionally, a camera can be included in the package to allow the customer to show remote technicians the physical setup, equipment cable connections and other details.

Battery or AC powered

VGA, DVI and HDMI inputs

3G/4G/4G LTE or WiFi connectivity

REDUCE EQUIPMENT DOWNTIME WITH APOLLO

The goal is to reduce equipment downtime; a benefit for both manufacturers and their customers. There are two ways in which Apollo can be made available to customers: bundled or just-in-time.

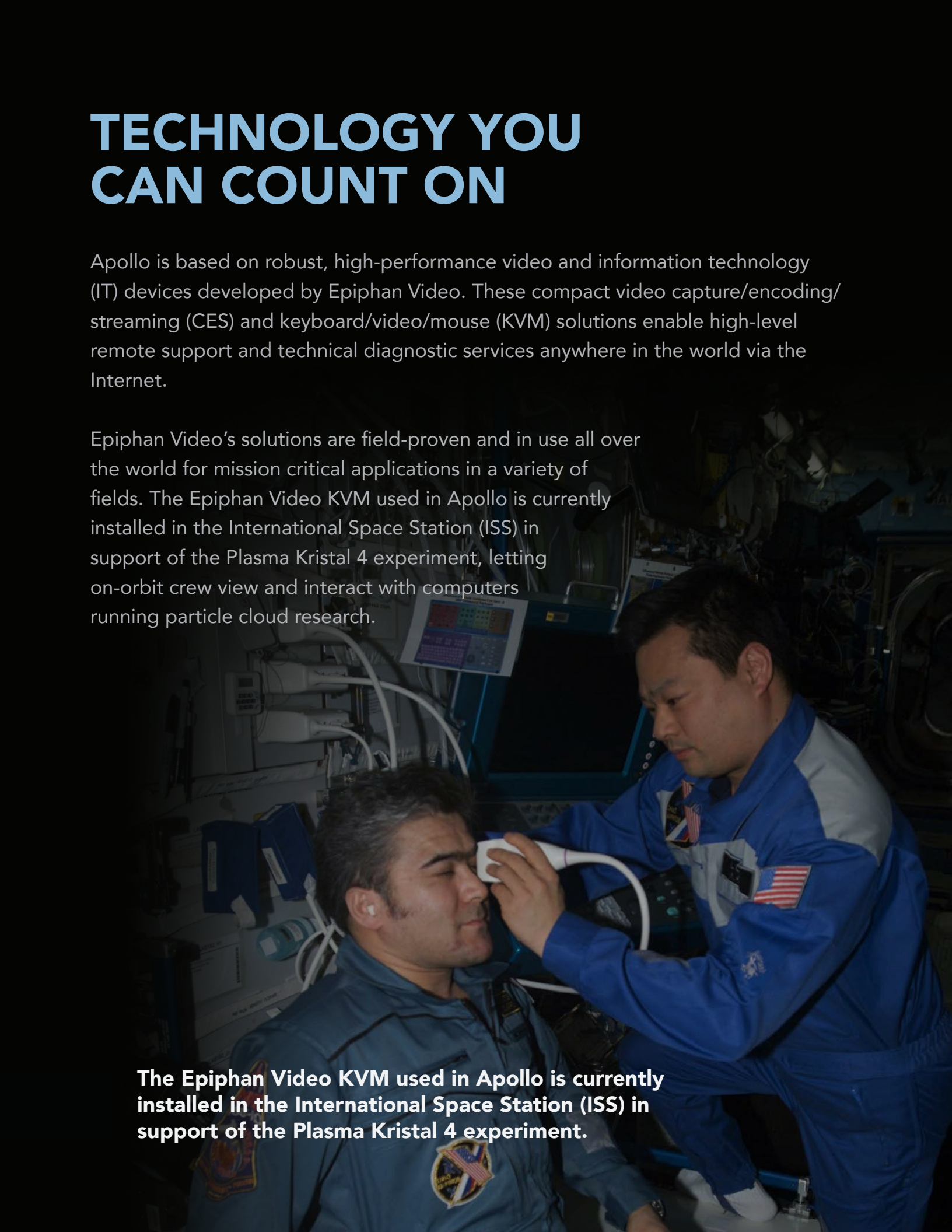
As part of a service contract, Apollo can be bundled and delivered to customers with the initial equipment purchase. With this option, Apollo can also be used to generate additional revenue as part of an ongoing service agreement where a technician checks in weekly or monthly to make sure everything is running to specifications. The technician can suggest or make small changes to improve capacity or functionality.

Alternatively, an Apollo unit can be delivered overnight to the customer site as a rental unit. When the problem is resolved, the customer packs Apollo back into its shipping case and calls for delivery pickup. With this option, the overhead costs are lower, but time to resolution is longer than if the system is already on-site.

TECHNOLOGY YOU CAN COUNT ON

Apollo is based on robust, high-performance video and information technology (IT) devices developed by Epiphan Video. These compact video capture/encoding/streaming (CES) and keyboard/video/mouse (KVM) solutions enable high-level remote support and technical diagnostic services anywhere in the world via the Internet.

Epiphan Video's solutions are field-proven and in use all over the world for mission critical applications in a variety of fields. The Epiphan Video KVM used in Apollo is currently installed in the International Space Station (ISS) in support of the Plasma Kristal 4 experiment, letting on-orbit crew view and interact with computers running particle cloud research.



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