Purdicom Case Study

2022

Introduction

Purdicom is an exciting, fast-growing technology company based in Oxfordshire. We are a value-added distributor acting as a supply chain partner to many well-established vendors and brands.

We supply enterprise-level Wi-Fi, Point-to-Point and security technologies.
At Purdicom we truly believe in practising what we preach and use all the manufactures in our production network or within the engineering teams homes to thoroughly test products and get a true end user experience.

Production Network

In our production network we utilise:

• Ruckus Wireless / SmartZone
• Ruckus ICX
• Cambium cnMatrix
• Siklu
• Certa UPS
• WatchGuard
• Encapto
• HikVision

Ruckus Wireless / SmartZone

The Ruckus SmartZone has been pivotal during unprecedented times allowing us to leverage Ruckus DataPlane technology in conjunction with the H Series Access Points. Not only did this allow users to take their physical desk phones home but also provided PoE power to them without the need for an additional power injector. Better yet all client traffic was segmented and tunnelled back to our office using the Corporate 802.1x SSID meaning there was no additional configuration needed and all users were secure behind the corporate firewall.

Watchguard Firewall

WatchGuard has allowed Purdicom to protect our organisation using the "Total Security Suite" which not only protects against known malware but also zero-day threats by quarantining any and all unknown files and testing them in a sandbox to see if they are malicious.

WatchGuard's technology also enabled remote working not only by the enablement of IKEv2 VPN utilising certificates for when employees were visiting customers but also allowing access to workstations used for heatmapping.

The heatmapping workstations are high compute specifically for Ekahau and the engineers needed constant access. Whilst the VPN and Microsoft remote desktop could of worked, it was far simpler to utilise the WatchGuard Access Portal which relies on a web browser and forms a remote session meaning that engineers didn't need to remember hostnames for the multiple workstations.

To ensure that only specific users could access the Access Portal we were able to integrate with Active Directory Security Groups and only allow those who needed access to have access.

Watchguard EDPR

To ensure that our endpoints are protected when staff are visiting customers, WatchGuard EDPR technology has been utilized, which not only provides the same features as the firewall such as URL blocking, known malware and zero-day malware protection but it also allows total control of the devices. This enables Purdicom to analyse website visited, application usage as well as restricting features such as USB Flash Drives or modifying the inbuilt Windows firewall and deploying applications.

WatchGuard has just announced the release of their new M-Series firewall appliances – the Firebox M290, M390, M590, M690 and two top line models, the M4800 and M5800.

These units are affordable yet very powerful and highly capable solutions for both small and medium size businesses. WatchGuard's M-Series deliver increased security, fast performance and all the processing power required to handle the explosive and ongoing growth in bandwidth, connection speeds, encrypted traffic and video streaming.

Cambium Networks

Provide your users with an optimal network experience with enterprise-grade switching from Cambium Networks. The cnMatrix range of switches has been designed for network operators looking for a simple and flexible way to improve the entire network's performance.

These switches simplify network deployment and operation, but also provide a complete solution as they work seamlessly alongside cnPilot access points and can be managed in the cloud with cnMaestro. Specialising in enhancing performance, security and reducing network management costs.

Cambium cnMatrix

In our training center we utilize the cnMatrix for its automation of VLAN segmentation when teaching customers. This allows the network to dynamically change the VLAN depending on if we are teaching Cambium or Ruckus.

cnMatrix also allows us to build templates and push them remotely via cnMaestro allowing full visibility of the entire Cambium Solution including ePMP.

Cambium ePMP

Our primary warehouse is just over 1 mile from the office and there isn't a clear line of sight meaning we couldn't utilize cnWave or Siklu. ePMP meant that we didn't need to pay a telecom provider thousands to run fiber to the Warehouse and still utilizing our existing internet feed at our office HQ.

Siklu Multihaul TG

Our secondary warehouse is across a busy country lane meaning we couldn't run ethernet or fibre, whilst we could use 5GHz technology we had the perfect opportunity to test 3.8Gb of aggregated throughput as we often pre-stage equipment in this secondary warehouse.

In addition, using Siklu meant we could leverage the PoE out capabilities to power a Ruckus access point to cover the outside of the building without needing another cable run.

Encapto

Whilst we could use an inbuilt portal from our wireless vendors, Encapto goes the extra mile allowing for different authentication methods on a single captive portal / hotspot. Better yet it allows full customisation of the portal in terms of imagery, layout and overall design.

We also use the survey and campaign features which allow us to present an advert before users connect to show new products.This then also allows us to capture user's details.

Certa UPS

Certa UPS has been critical in our Business Continuity Plan, as we are in a remote location, we are susceptible to power cuts. All switching and server cabinets have Certa UPS and can keep the equipment running for 6 hours as a minimum which is enough time for a backup generator to be sourced should it be a major outage.

Certa UPS management software has been efficient at reporting any issues allowing us to notify our generator provider to bring one to us.

In the event that the UPS is critical on remaining uptime it has the ability to gracefully shutdown our Hyper-V Virtual machines and SAN ensuring there is no risk to loss of data or corruption.

Certa UPS whilst simple has been one of the best enhancements to Purdicom in terms of install with little ongoing maintenance other than overviewing when performing a Disaster Recovery Test.

Call us on +44 (0) 333 1212 100 or email us at hello@purdi.com

CertaUPS

Tried and tested across all five continents, Certa UPS provide backup power solutions that have been designed to the highest quality and performance, ensuring customers can stay online in the event of a power outage. They offer unparalleled knowledge in the emergency power market, steering from 25 years of engineering and emergency power experience.

Certa UPS provide a solution for any business; from Line Interactive to Online Double Conversion through 800VA to 30kVA.

The Managing Director's House

Introduction

Our Managing Director, Hugh Garrod also believes in testing the user experience and uses Ruckus Cloud at his house with R650, T750 Access Point's and ICX 7150 switches, in addition we have deployed Hikvision CCTV.

Ruckus Cloud provides a brilliant APP that allows anyone to quickly monitor and manage the complete system (Access Point's and Switches). The inbuilt monitoring has been particularly useful to alert the MD and the Technical Team to proactively rectify any issues.

In conjunction with Ruckus Cloud. Ruckus Analytics has been an eye opener into the amount of data that is traversing even in a home network with minimal users. Due to this analysis we were able to identify that the internet bandwidth simply wasn't enough and prompted an upgrade to a faster package which then brought down overall congestion on the LAN.

Whilst it's great having a reliable fast and robust wired and wireless solution the security element cannot be overlooked.

Hikvision CCTV with ANPR recognition replaced an aging analogue system that could only be locally viewed, Hikvision allows for full remote monitoring of any camera but also allows the inbuilt two way microphone and speaker to communicate with anyone arriving at the property or mischievous pets.

ANPR for vehicle detection has allowed for not only seeing who is arriving at the property but also to trigger the opening and closing of gates whereas before a fob was needed which is another item to have on a keychain.

Utilising motion detection ensures that the system only records specific events allowing for easy playback instead of having to go through hours of footage whilst maximising the hard drive space.

Certa UPS has been critical in ensuring specific equipment is always powered regardless of power outages keeping phones, CCTV and the network as a whole powered.

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Purdicom partnered with Ruckus Networks in 2008 and helped grow its brand presence throughout EMEA. Now, as the largest and most significant Ruckus distributor, we continue to work closely together adding huge value through our technical services, large stock holding and financial flexibility.

CommScope RUCKUS offers a complete line and industry-leading product portfolio including indoor and outdoor Wi-Fi, wired Ethernet switches, an IoT suite and a range of cloud-based or hosted Wi-Fi control and management tools.