### HPE aruba AMDZ PENSANDO

# CANTERBURY CHRIST CHURCH UNIVERSITY EMBRACES THE HPE ARUBA CX 10000 WITH AMD PENSANDO<sup>™</sup> TO MODERNIZE ITS DATA CENTER



### Canterbury Christ Church University

"The CX 10000 Smart Switch allows for a simplification of the data center, while increasing security at a cost we can achieve."

### INDUSTRY

**Higher Education** 

### CHALLENGES

Securing the data center, while modernizing the network at a cost achievable to the business

#### SOLUTION

HPE Aruba CX network fabric based on CX 8360 and CX 10000 switches

#### RESULTS

- Reduce firewall appliance licensing costs by 20%
- Automatic data center fabric definition and deployment
- Strengthen security with microsegmentation and audit trails

#### AMD TECHNOLOGY AT A GLANCE

AMD Pensando DPUs in the HPE Aruba CX 10000 Smart Switch

**TECHNOLOGY PARTNER** 

HPE Aruba Networking

#### Creating One of the Most Digitally Advanced Universities in the UK

Together with HPE Aruba Networking, Canterbury Christ Church University is creating one of the most digitally advanced universities in the UK. Underpinning this transformation is a drive to consolidate and simplify IT operations.

"Our data center networks have evolved over the past decade. HPE Aruba Networking enables us to provide high performance to support the modern data-heavy applications, while keeping pace with the latest security challenges," said Andy Powell, Deputy Director and Chief Technology Officer.

At data center level, the HPE Aruba Networking CX 10000 switches with AMD Pensando<sup>™</sup> DPU technology power unified, intelligent, and automated software-defined fabrics. They offer the flexibility, scalability, and resilience needed to support modern next-generation edge-to-cloud data centers. This platform also provides a distributed services architecture that allows native security and other data center services for East/West data center traffic.



# Modernization of Data Centers with HPE Aruba CX 10000

As the university looked to modernize the data center, taking into account the new requirements for physical connectivity as well as the need to improve security, they investigated a number of options. The HPE Aruba CX 10000 with AMD Pensando<sup>™</sup> DPU technology provided the ability to build a secure fabric at a fraction of the cost of other solutions.

During their investigation they found a number of solutions with limitations on the virtualization technology or the operating system supported. This was not acceptable as they were looking to achieve their **Cyber Essentials** (a UK government-backed scheme that helps protect organizations against a range of most common cyber attacks), knowing it will be required for the university to secure new educational investments in the next five years.

They considered the option of expanding traditional firewalls to provide a macro segmentation strategy, but:

- the cost of expansion was prohibitive;
- required re-architecting their networks; and
- still only covered a fraction of the services needed to be covered.

"The distributed services approach, together with the end-to-end microsegmentation, means we can bring security services as close as possible to the workloads."

- Jim Manuel, Network and Data Centre Manager at CCCU



# Visibility, Security, Compliance and Simplified Operations

The introduction of the CX 10000 allows CCCU to look at a number of requirements that needed to be met in the data center. Their primary drive to a secure data center, allowing them to meet their obligations for Cyber Essentials, required them to understand what is going on in the data center in order to plan how to secure the environment.

The ability to deliver network services and enable the services as needed helped them start and plan their journey. With the ability to enable visibility first they could gain an understanding of what services existed in the data center: "We had an idea, but to be 100% we needed evidence, and the logging data or IPFIX allowed us to understand the flows as we started the journey."

They started by building up a parallel policy based on evidence, and audited it before it was implemented. This provided them with the governance required for any firewall change.

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- Andy Powell, Deputy Director and CTO at CCCU

## **Zero Trust Network Security**

Zero Trust and segmentation are not currently part of the security posture for Cyber Essentials, but CCCU can see how the industry is moving. "We believe we have a solution that allows us to meet the requirements of the frameworks as they develop, and have the support of AMD to make sure the solution develops as needed."

## Happy to Be an Early Adopter

It is important for Canterbury Christ Church University to adopt a leadership position on technology, says Powell. "Our decisions are based on the future. We're very happy to be seen as an early adopter. After all, we strive to deliver the best digital experience to some of the brightest innovators and forward-looking people. As an IT service provider, we want to be agile and this requires the willingness to try and test that latest ideas and technologies.

"This has a reputational benefit-it is important that the University is seen as progressive as well as practical."

## "Mean Time to Innocence"

The live telemetry provides full visibility across all East/West data center traffic, enabling network operators to detect potential issues before they become serious problems—or as is more often the case, take the blame away from the network—and allow people to focus on the genuine issues and where they lie. "This level of visibility is something we never really considered when looking into the segmentation solution but is a huge benefit to the solution."

## **The Journey**

"We know we are at the real beginning of the journey with the HPE Aruba CX 10000 solution and our zero trust segmentation strategy, but it is a journey with a plan, and more importantly with the tools to help us get there. We realize now that this all starts with visibility, and had we gone down one of the other paths we would have hit hurdles along the way and had to second guess the solution. We are not guessing anymore. We might still hit some hurdles, but we think we have the right tools to help us get over them."

## About Canterbury Christ Church University

Canterbury Christ Church University is a major contributor to regional skills and innovation in Kent and Medway. It has a strong track record in education, research and graduate skills, and is the number one university in the UK for graduates in employment. The University recently opened £65m STEM facilities and £12m creative arts building that are helping to generate highly skilled graduates for the region, supporting the regional economy, and growth in science, healthcare, and the creative and digital industries.

### The University is:

- Number one in the UK for graduates in employment (Out of 100 Higher Education Institutions with 3,000 or more graduates, HESA Graduate Outcomes 2023).
- A silver award recipient in the Teaching Excellence Framework (TEF) for delivering high-quality teaching, learning, and outcomes for its students.
- Delivering research that has been assessed as world-leading and internationally excellent (REF).
- In top 20% of English universities for public and community engagement (KEF).
- In top 25 nationally for increasing social mobility.

## **About AMD**

For more than 50 years AMD has driven innovation in high-performance computing, graphics, and visualization technologies.

Billions of people, leading Fortune 500 businesses, and cutting-edge scientific research institutions around the world rely on AMD technology daily to improve how they live, work, and play.

AMD employees are focused on building leadership high-performance and adaptive products that push the boundaries of what is possible.

For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ: AMD) website, blog, LinkedIn, and Twitter pages.



## Learn more about AMD Networking Solutions

### https://amd.com/pensando

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