## AppsAnywhere NOW ON CAMPUS SUMMER UK & EU

REACHING THE PEAK OF **HIGHER ED IT** TOGETHER



REACHING THE PEAK OF HIGHER ED IT TOGETHE

Welcome everyone!

SUMMIT UK & EU 2023

Birmingham City University



Nick Johnson CEO & Co-Founder



Keegan Moodley Global Head of Customer Success



Spencer Vale Head of Product

#### Agenda





**09:30** - Networking with Breakfast

**10:00** – **Nick Johnson** (AppsAnywhere, CEO) AppsAnywhere Welcome & Updates

**10:15** - **Nick Moore** (Birmingham City University, CIO): Application Delivery in Award Winning & Innovative Spaces

**11:00** – **Spencer Vale** (AppsAnywhere, Product Manager): A Look to the Future at AppsAnywhere

**11:25** – **Darren Harris** (Former Paralympian / Motivational Speaker): Unblind the Mind

12:10 - Networking Lunch

**13:10** - **Mark McManus** (Microsoft, Microsoft Cloud Lead for Education): Education, Cloud & the Future

**13:55** - **Mesh Bolutiwi** (Cyber Security (GRC), Director): Cyber Security in a Digital Age

**14:40** - Networking with refreshments

15:00 - Breakout Sessions & Networking

15:45 - Closing Remarks

AppsAnywhere NOW ON CAMPUS

## **AppsAnywhere Welcome & Updates**

Nick Johnson CEO & Co-Founder



## AppsAnywhere®

## HEIT Teams down by 50%



# AppsAnywhere COVID Changed Everything!



### **HEIT Trends**

May 2023 Survey

**Online, In-Person, Hybrid & Hyflex** 

**Repurposing Campus Labs** 

**Rethinking The IT Menu** 

**IT** Centralisation



#### What percentage of students can study off campus?





## As part of a Hybrid or Hyflex learning strategy, have you successfully executed any BYOD support?





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## Delivery in Award Winning & Innovative Spaces

Nick Moore

CIO, Birmingham City University





#### Welcome to Birmingham City University

Dr Nick Moore, Director IT and Digital

## WELCOME

University for Birmingham

Enabling personal transformation

#### Our measures of success:

- Quality
- Meeting demand
- The STEAM agenda
- Environmental sustainability
- Research and enterprise









#### Mission:

- Meeting demand from our city/region
- Future proofing the portfolio: STEAM
- Protecting our futures: Environmental sustainability

#### **Pillar 1: Academic Excellence**

- Teaching excellence
- Embedded research
- Prioritising the student experience

#### **Pillar 2: People and values**

- Staff engagement
- Inclusivity
- Wellbeing

#### **Pillar 3: Community and partnerships**

- Enterprise
- International partnerships
- Communities and engagement
- Graduate employability

### **SIZE AND SHAPE**

Overview of University Student Headcount by Faculty and School





Powered by BIRMINGHAM CITY University Application Delivery in Award Winning & Innovative Spaces

### STEAMHouse brief

"This business case is for the Academic Portfolio Board to transform all the BCU allocated space within the building and convert it into new teaching space (...) The project will allow the school of CDT to be at the very heart of STEAMHouse by housing its staff, its research and a large part of its current and future teaching in the building" [October 2020]

IT considerations:

- The provision of a high-speed resilient network and associated services
- High-speed Wi-Fi and guest access
- 5G in the local area and the possibility of internal 5G provision
- Connectivity and housing for augmented and virtual reality equipment and facilities
- Digital displays and signage in co-ordination with audio-visual equipment, controls and remote controls and monitoring for predictive and preventative maintenance
- The increased provision and deployment of software and platforms delivered virtually (Remote Software Access Project)
- Integrated and orchestrated life safety, security, environmental and building management systems



September 2020 – STEAMHouse Phase 2 work commences



September 2022 – STEAMHouse launch. Open for teaching from January 2023

## Remote software access project timeline

- April 2020 Windows Virtual Desktop (tactical solution in first lockdown, from student project to university roll out)
- August 2021 Remote Software Access project board is formed to address STEAMHouse requirement
- March 2022 AppsAnywhere selected as a supplier
- April July 2022 initial installation

- September 2022-December 2022 preparation for Semester 2 roll out (STEAMHouse opening for teaching on 23 Jan)
- 23 January 2023 go live

#### IT Hub in STEAMHouse

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 Intended for a proactive spa – not just about help

Provi

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re personalized

## Teaching in STEAMHouse



- 10 teaching rooms: 2x80 seaters and 8x40 seaters
- Flexible learning spaces enabling "lab in a box" concept
- 56 modules (mostly Computing, Engineering and Built Environment faculty) – combination of seminars, workshops and tutorials
- 500 laptops 300 via in-room trolley service and 200 via Lapsafes



## STEAMHouse teaching spaces

#### CST006-CST007

#### CST008 (Innovation Space)



## AppsAnywhere delivery

- 24 applications made available to students who had modules taught in STEAMHouse
- AppsAnywhere as a
   "Single pane of glass"
- Delivery mechanisms: Cloudpaging, SCCM, Local install



## AppsAnywhere usage in Semester 2

- On average, 200 unique users per month
- On average, 150 laptops loaned per week from in-room trolley service





### AppsAnywhere stats – Feb '23



### AppsAnywhere – March '23 stats





Distinct user: Individual student

**Launch**: An individual user opening on an application within AppsAnywhere (individual user could be opening multiple applications from the portal)

### Feedback from staff

- AppsAnywhere is working fine, students are happy with AppsAnywhere and don't have any issues
- Students are using AppsAnywhere and using the laptops that are provided in STEAMHouse, all is fine
- Students only needed minimal support in week 1, but now they are straight in there
- The lecturer is doing things a little bit differently in STEAMHouse, in the past there was a separate lecture and seminar and this year it is combined into one, it works nicely in STEAMHouse as the rooms can function as a lecture room and a lab, that is the only change the lecturer has made so far. There may be different ways of using the space in the future
- The move to laptops promotes project working, group working where the students are not stuck to the table. When students do room acoustic measurements they can do that anywhere, without being stuck to the desktop, and can work a bit more like people in industry would

## Feedback from students

- I find using AppsAnywhere simple to understand, quick and efficient.
- I was happily surprised to see that there aren't any limitations to different university devices in regards to the software installed on the due to AppsAnywhere, and I believe it is a great app for that. I don't personally have any feedback, I think it's an amazing app.
- The interface for AppsAnywhere is extremely intuitive to obtain the relevant software, for my course. In my case, it was to obtain Cisco Packet Tracer on University laptops as well as on my personal laptop.
- The first time I used it, I found it quite easy to navigate, and subsequent times have been even more straightforward. The platform is user-friendly and intuitive, making it easy to access the necessary applications required for my sessions.
- I have also used AppsAnywhere outside the university environment, and I must say it has been quite useful. It's great that I can access the apps I need from anywhere, whether I'm working from home or on the go.
- In terms of suggestions for improvement, I think it would be great to have a more extensive range of applications available on the platform, particularly in the areas of data science and artificial intelligence. It would also be helpful to have more detailed guides or tutorials on how to use specific applications.

#### Building on the STEAMHouse model across the University

(1) A different way of teaching based on project-based learning
(2) Software access for students from anywhere (licenses willing)
(3) Greater flexibility in how teaching spaces can be used (exceptions exist...)
(4) A different support model (cost impact tbd....)



#### Questions?

AppsAnywhere NOW ON CAMPUS

## A Look to the Future at AppsAnywhere

**Spencer Vale** 

AppsAnywhere, Product Manager



#### AppsAnywhere 3.0





#### **Good afternoon**

What would you like to launch?



#### Feedback Forum

https://feedback.appsanywhere.com/



| Create a Post           | Showing Top v posts in All Categories v Q Search |   |            |
|-------------------------|--|---|------------|
| EGORY                   |  |   |            |
| elect Category 🗸 🗸      | 13   | Pre-launch dialogs  | Ω3         |
|                         | 15   | IN PROGRESS   |            |
|                         |  | method. This was a feature previous investigated and scoped as Pr   |            |
| hort, descriptive title |  |   |            |
| AILS                    | 12   | User Preferences for the Portal   | <b>D</b> 1 |
| ny additional details   | 12   | In 2.12 we created the new search driven portal and in 3.0 we have<br>enhanced this by adding new collections including 'Recent' which    |            |
| CREATE POST             | 12   | In Place Upgrade Process  | <b>1</b>   |
| Powered by Canny        |  | Would like in place AppsAnywhere upgrades. Having to spin up new appliances requires multiple teams and work.                             |            |
|                         | 12   | Intune integration<br>UNDER REVIEW  | <b>P</b> 2 |
|                         |  | Feedback from 2022 user days. Customer wants it to be easier to push images out using Intune via AppsAnywhere                             |            |
|                         | 10   | AVD One Click Launch<br>UNDER REVIEW  | $\Box$ 2   |
|                         |  | Feature request from UK User Day: Improved AVD, one click launch.<br>Customer feels current integration is clunky. Something that reflect |            |
|                         | 10   | VPN Licensing   | ₽ 1        |
|                         | 10   | Ability to require a VPN connection for app access First raised at the<br>Toronto User Day 22   |            |
|                         |  | Improved Analytics  | <b>D</b> 1 |

AppsAnywhere

FEATURE REQUESTS

ightarrow changelog

II ROADMAP

CATEGORY

TITLE

DETAILS

8 From UK User Day: App usage stats (Popularity, location (physically), when an app was last used and along with high usage apps based

| AppsAnywhere  | LOG IN / SIGN UP  |  |
|---|---|--|
| III ROADMAP $\bigcirc$ FEATURE REQUESTS $\rightarrow$ 0   | Q SEARCH  |  |
| Give Feedback<br>Feature Requests 60<br>Roadmap   |   |  |
| <ul> <li>Under Review</li> <li>Integration with Moodle<br/>FEATURE REQUESTS</li> <li>AVD One Click Launch<br/>FEATURE REQUESTS</li> <li>Intune integration<br/>FEATURE REQUESTS</li> <li>Brightspace Integration<br/>FEATURE REQUESTS</li> <li>Brightspace Integration<br/>FEATURE REQUESTS</li> <li>Role Based Access<br/>Profiles<br/>FEATURE REQUESTS</li> </ul> | <ul> <li>Planned</li> <li>Automate more of the application creation process<br/>FEATURE REQUESTS</li> <li>In Place Upgrade Process<br/>FEATURE REQUESTS</li> <li>12 FEATURE REQUESTS</li> </ul> | <ul> <li>In Progress</li> <li>User Preferences for the<br/>Portal<br/>FEATURE REQUESTS</li> <li>RAM should not be a<br/>Required field for<br/>Hardware Profiles.<br/>FEATURE REQUESTS</li> <li>A Rich Text Editor for<br/>descriptions (WYSIWYG)<br/>FEATURE REQUESTS</li> <li>Pre-launch dialogs<br/>FEATURE REQUESTS</li> </ul> |
## **AppsAnywhere 3.1**

Now available

## **User Preferences**





### **Good afternoon**

What would you like to launch?



 $\heartsuit$  View all Favourites

B View all apps

## Pre-launch dialogs





### Launching app

## Adobe Creative Cloud



### **Terms & Conditions**

Creative Cloud is automatically available to all active students, faculty, and regular full- and part-time staff on campus. Creative Cloud is not automatically available to the following:

- Affiliates with the HR role of "Trades"
- Temporary Staff
- Sponsored Affiliates
- Retirees
- Alumni

Those who are not automatically eligible for Creative Cloud but need it for university related activities may request access by completing the Adobe access request form (must be logged in to your university account). Complete details on eligibility and access are found on the university <u>Adobe Creative</u> <u>Cloud webpage</u>.

A user may install and use the software on up to two computers. Some applications, including Premiere Rush, Spark, and others also run on mobile devices, with the ability to share projects seamlessly from one device to another. Mobile app use does not count toward the two-computer limit.

### **License Expiration Date**

06/27/2023

Don't show me this message again on this device

Cancel Continue

| 1 AppsAnywhere   | Q. Search for an admin page   |
|--|---|
| <ul> <li>Dashboard</li> <li>Applications</li> <li>Provisioning</li> <li>Cloudpaging</li> </ul>       | Edit Application         Image: SolidWorks         Details       Delivery methods       Icon       Dependencies       Provisions       Categories       Shortcut management       Pre-launch dialog   |
| □ Desktops ∨<br>□□ Analytics ≯<br>□□ Reports ∨   | Pre-launch dialog Text entered into the pre-launch dialog will appear before this app launches in the portal. This could be used for a license key, an agreement, important information about the app, or any other reason.   |
| □     Customisation     ∨       ↓     Connectors     ∨       ↓     Settings     ∨       ↓     Portal | <ul> <li>Note that which is alreading with account a capendences, pre-induced dialogs with het show for dependences and with only show for the parent app.</li> <li>Show a pre-launch dialog</li> <li>De launch dialog</li> </ul>   |
|  | Paragraph       ∨       B       I       ∅       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       :::       ::::       ::::       ::::       ::::       ::::       :::::       :::::       :::::       ::::::::::::::::::::::::::::::::::::   |
|  | Pre-launch dialog visibility         When a user sees a pre-launch dialog for a particular app, they will have the opportunity to choose not to see it again on their current device—though pre-launch dialog text will always be available in the launch success message, regardless of whether the dialog was shown.         You may disable the option to hide a pre-launch dialog if the contents are important for every launch—such as a warning that the app will be removed at a future date. |
| /  |   |
|  | Save dialog   |

7ZIP 7-Zip

Adobe InDesign Adobe



B View all apps

## Also in 3.1





- Improved accessibility
- New OS for the appliance
- Simplified upgrades



## Product simplicity

## Easy to use

- Search driven
- Improved accessibility
- Smart collections
- Pre-launch dialogs
- Unobtrusive client and validation experience
- LMS integrations

## Easy to set up

- Cloud hosted
- In place upgrades
- Application library
- Guided admin experience



### AppsAnywhere Q Search for an

Dashboard
Applications

8 Provisioning

△ Cloudpaging

Desktops

O Analytics

🔅 Settings

Portal

Customisation

Applications > App library

## **App library**

Browse the available best-practice templates provided by AppsAnywhere to quickly add the apps you need.

1 filter applied Show filters  $\sim$ 19 / 250 apps shown, sorted by Popularity - $\bigcirc$ 67 3 Firefox Cloud Mounter CleanMyMac X Mars Edit Sketch Tower Paw E S R 88 0 Alfred CleanShot X Sizzy Table Plus Ulysses Expressions Forklift N 1 +n Freeform Hyper Notion PDF Pen Pixel Snap Create app ⊞  $\bigcirc$ Import apps from CSV Add application Bulk import apps from a .csv file, quickly filling Add a new application, or create your own in basic details

Get help 🕲 🛛 🔇

|  | Q Search for an admin page  | Get help (                                       |
|--|---|--|
| Dashboard  | Applications > Add an application   |  |
| Applications<br>Provisioning<br>Cloudpaging<br>Desktops<br>Analytics<br>Customisation<br>Customisation | Add an application<br>Add a new application for your users to launch. We'll try to provide as mu<br>as possible based on our experience and best practices from customers<br>you can always follow your own path.<br>+ Create a custom app  | S Preferences<br>uch guidance<br>s like you, but |
| Connectors V<br>3 Settings V   | Galapagos<br>Attenborough Software  | < <u>Select a different app</u>                  |
| <sup>21</sup> Portal   | <ul> <li>Add your license information</li> <li>Galapagos requires a license to run correctly.</li> <li>License key</li> <li>@9ea669a-9581-407f-aa98-8bdead94edcd</li> <li>Your license key can be found in your order confirmation email from Attenborough<br/>Software, or in your Attenborough Software account under some → account →<br/>section.</li> <li>Buy a license for Galapagos from Attenborough Software </li> <li>Select access groups</li> <li>Add this app to the selected access groups.</li> <li>✓ All students</li> <li>✓ All staff</li> <li>Technical staff</li> <li>Create new access group</li> </ul> | Availability AppsAngwhere C                      |

## **Guided set up**

- Confirm what's going to happen
- Add required information
- Customise apps

|  | 0 0 | 8 |
|--|-----|---|
| Channel Confirm selected applications<br>Channel Confirm selected applications<br>Channel Confirm selected applications<br>Channel Confirm selected apps marked as ready will be launchable when added.<br>Some apps may require more information, which you can add now or later.<br>Channel So apps to add.<br>Channel So apps to add.<br>Cha | 5   | 8 |



- Add other users
- Confirm permissions

## Branding

- Optional could come back to it later
- More interactive

| ഫി                      | Q               |          | Get help (18)         |
|-------------------------|-----------------|----------|-----------------------|
| O lum                   | Branding        |          | All the second second |
| 0 lum<br>0 lum          | un mun un       | Preview  | Light   Dank          |
| 0 lum<br>0 lum<br>0 lum |                 | 0.0 1000 |                       |
| 0 lum<br>0 lum<br>0 lum | Login backgrand | Preview  | Light   Dank          |
|                         |                 |          |                       |
|                         | вир this step.  |          | Sowe changes          |



## Questions





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## **Unblind the Mind**

**Darren Harris** 

Former Paralympian & Motivational Speaker









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## **Networking Lunch**

Please reconvene at 13:00

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## Cyber Security in a Digital Age

Mesh Bolutiwi Director, Cyber Security (GRC)





29th June 2023

# Cybersecurity in a Digital Age (2023 and beyond)

Understanding the evolving cyber security landscape, latest trends, current challenges, and best practices and recommendations to apply for effective cyber defense.







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Dr. Mesh Bolutiwi

Director, Cyber GRC



**Bradley Bohmer** 

Business Development Manager



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Agen da

- 1. Introduction
- 2. The Evolving Cyber Security Landscape
- 3. Latest Trends in Cyber Security
- 4. Challenges Faced by Organisations
- 5. Good Practices for Effective Cyber Security
- **06** Conclusion

## 07 About CyberCX





"There's no silver bullet solution with cybersecurity, a layered defense is the only viable defense."

James Scott – Senior Fellow, ICIT

## Introducti

Complex ecosystem

Technological advancements, along with a growing diversity of technological platforms through digitisation, have resulted in an ever-expanding attack surface and a simultaneous increase in the number of cyber-attacks being carried out daily, often with significant consequences.

Technological Heterogeneity

## Digitisation

02

Internet of Things (IoT) 03



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## The Evolving Cyber Security Landscape

A close look at the constantly evolving cybersecurity landscape and major issues today...(1/2)



- 1. Growing diversity of technological platforms through digitisation
- 2. Expanding attack surface
- 3. Simultaneous increase in the number of cyberattacks being carried out daily
- 4. AI Threats

- 1. Individuals, groups, nation states, etc.
- 2. Capabilities, intent, and motivations
- 3. Sophistication in attack strategies and approach
- 4. Leveraging advanced tools and emerging technologies (e.g. AI, ML)

- 1. Financial losses
- 2. Legal implications
- 3. Compliance and regulatory violations
- 4. Reputational damage
- 5. Customer trust impacts
- 6. Significant business disruptions

- 1. Insider threats
- 2. Supply chain risks
- 3. Regulatory compliance
- 4. Skilled cybersecurity workforce

## Common Entry

Points Threat actors are increasingly looking for entry points to gain access to an organisation's networks, systems, applications and data, and entry points are increasing due to new ways of working and digitisation.





Phishing via social engineering tactics



Exploitation of vulnerabilities in systems and applications

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### Misconfigurations in Cloud & On-Premise platforms

### Other methods

Other methods include injection attacks, wireless networks, rogue access points, and many more. Based on the analysis of data breaches from **2021** - **2023** (Verizon, 2023), (IBM, 2022), (CyberCX, 2023)

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Cyber-attack and breach statistics obtained from IBM, Verizon, Sonicwall and CyberCX.

## The Evolving Cyber Security Landscape



© CyberCX 2023 Cyber-attack and breach statistics obtained from IBM, Verizon, Sonicwall and CyberCX.

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## The Cyber Challenge for

higher Value to Sincresears sectors are one of the highest targeted sectors for cyber security incidents globally. Australia, in particular, is regularly targeted by cyber threat actors, resulting in an ever-increasing threat for Australian universities.

### The education/research sector worldwide experienced the highest volumes of attacks

every month in 2022 and in 2021 (114% increase vs 2020).



### Australia and New Zealand is the most attacked region

for higher education and research organisations.

### Australia is the second most targeted country for cyber incidents

in the higher education and research sector.







Cyber-attack statistics obtained from Check Point Research. Breach statistics obtained from the OAIC.

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## A close por equination prover of the Current contraction of the Current contraction of the Current contraction of the Current current of the Current of the

### **Business Email** Compromise

Increasing rise in BEC attacks due to low investments in time, effort and resources and the high rewards

BEC attacks now represent fifty percent of social engineering incidents

15%

**Cloud Misconfiguration** 

Attack vector being increasingly leveraged by cyber-criminals to launch attacks against organisations

In the year period between 2021 to 2022, Cloud misconfigurations now account for 15% of all security breaches analysed (IBM, 2022)

**Ž** 

**Zero-Day Exploits** 

Growing trend impacting organisations, with attacks occurring as targeted and non-targeted attacks

MOVEit Example: MOVEit critical SQL injection vulnerability in May 2023,

impacting several organisations

Phishina

Phishing was the second most common causes of data breaches (IBM, 2022)

50%

(Verizon, 2023).

**16**%

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Phishing has remained one of the

consistent methods employed by

cyber threat actors to carry out

**17**/0

attacks on organisations

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Ransomware attacks

organisations of all sizes

**USD 4.54M** 

Average ransomware

attack costs, excluding

the cost of ransom

payments (IBM, 2022)

attacks targeting

Increasing rise in ransomware

## A close up Keepstim The product of the Current of t

### **Distributed/Denial of Service** (DoS/DDoS)

Increasing trend is being observed particularly against organisations with critical services and against industrial control systems (ICS) and thus, presents unprecedented challenges

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### AI and ML-enabled cyberattacks

Threat actors are leveraging AI to analyse and replicate specific human behaviors that can be adapted for more realistic social engineering attacks



### **Other threats**

Other notable threats include

- Cloud security threats
- State-sponsored cyber attacks
- Man-in-the-middle attack (MitM)



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leveraging inadequate security measures and vulnerabilities in third-party software systems and applications





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Cyber-attack and breach statistics obtained from IBM, Verizon, Sonicwall and CyberCX.

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Cryptojacking

Threat actors targeting

leveraging such systems and

their resources to illegally

'mine' cryptocurrencies

unprotected systems,

## Current Trends in Cybersecurity Innovative practices, technologies, tools and processes are emerging and are increasingly being implemented across the industry to counter growing cyber threats



## Those the second second second reading the second second reading the second second reading the second second second second technologies continues to increase, organisations still face significant challenges in protecting their critical assets, systems, networks, and data. Some examples of top challenges are described below:



- Data breaches occurring through negligent, deliberate and or accidental scenarios
- Employees increasingly targeted by external threat actors
- Employee collusion ('collusive threats'), for e.g., IP theft, espionage or activism

- Increasing legal and regulatory compliance requirements on security and data protection
- Maintain and demonstrate effective compliance with legal and regulatory requirements
- Non-compliance leading to fines, penalties, reputational damage, etc.

- Shortage of highly skilled and qualified cybersecurity professionals
- Challenges in finding, attracting, recruiting, and retaining highly skilled and experienced cybersecurity talent.

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## Oversiewstthereauctricerestermented

|     | 0                     | Layered Defense<br>Framework         | Implement a <b>layered defence framework</b> , sometimes referred to as a <b>'defence in depth</b> ' (DiD) approach to bolster security defences  |
|-----|-----------------------|--------------------------------------|---|
|     |                       | Identity & Access<br>Management      | Define and implement an effective <b>identity</b> and <b>access management</b> strategy, along with associated processes, to manage the entire life cycle of digital identities and profiles for <b>people</b> , <b>processes</b> , and <b>technologies</b> |
|     | <b>A</b>              | Incident Response<br>Planning        | Established and tested plan in place to ensure a swift and <b>coordinated response</b> to a range of cyber-attacks  |
|     | ` <b>`</b>            | Awareness, Education<br>and Training | Invest in educating employees about cybersecurity <b>best practices</b> and the <b>risks</b> and <b>impacts</b> associated with successful cyber-attacks  |
|     | $\overline{\bigcirc}$ | Secure Email Solution                | Implement appropriate <b>email security measures</b> to protect from common cyber-attacks that primarily leverage emails as a vector, such as <b>ransomware</b> , <b>malware</b> , <b>phishing</b> , <b>business email compromise</b> , etc.                |
|     |                       | Security Frameworks                  | Leverage established <b>security frameworks</b> to support the implementation of cybersecurity objectives and to enable the establishment of <b>compliance benchmarks</b> where required  |
|     | <b>Č</b>              | Trusted Cybersecurity<br>Partner     | Engage with a trusted <b>cybersecurity partner</b> that can support on cybersecurity objectives and cyber maturity journey with specialised deep cybersecurity <b>knowledge</b> , <b>skills</b> , and <b>expertise</b>                                      |
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## Layered Defence Framework (LDM)



A Layered ('DiD') Defense Model

A layered defence framework is implemented by applying multiple defence components at different layers to protect an organisation's systems, networks, application and data. The implementation of a layered defence model enables an organisation to strengthen its cyber defences and lay the building blocks for effective cybersecurity maturity.

## Layer 5 Data Security

The data security layer focuses on the protection of data throughout its lifecycle and the prevention of data breaches.

## Layer 4

## **Application Security**

The application security layer focuses on the prevention of threats to applications.



## Layer 3 Endpoint Security

The endpoint security layer focuses on the protection from external and internal threats.

### Layer 2

## **Network Security**

The network security layer focuses on the protection of the internal network and includes policies, processes, tools, and technologies required to maintain security at the network level.

### Layer 1

## **Perimeter Security**

The perimeter security layer focuses on the prevention of cyber-attacks before they reach the organisational network.

# Framewor Defence ayered

sometimes referred to as a 'defence in depth' (DiD) approach to bolster their Implement a layered defence framework, security defences



## Components

Besides the above layers, other security domains that should be included as part of the defence in depth model approach include:

| Physical Security           | Threat Management   |
|-----------------------------|---------------------|
| Access Control              | Threat Modelling    |
| Governance and Organisation | Threat Hunting      |
| Security Governance         | Threat Intelligence |
| Awareness & Training        | Incident Management |
| Awareness                   | Incident Response   |
| Training & Education        | Forensics           |
| Insider Threat Programme    | Business Continuity |
| Third Party Pick Management | Business Continuity |
| Supplier Assurance          | Disaster Recovery   |
|                             |                     |
| Policies and Procedures     | Risk Management     |
| Policies                    | Risk Assessment     |
| Standards                   |                     |
| Guidelines                  |                     |
| Procedures                  |                     |
|                             |                     |
## Oversiewstthereauctricerestermented

|     | 0                     | Layered Defense<br>Framework         | Implement a <b>layered defence framework</b> , sometimes referred to as a <b>'defence in depth</b> ' (DiD) approach to bolster security defences  |
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|     |                       | Identity & Access<br>Management      | Define and implement an effective <b>identity</b> and <b>access management</b> strategy, along with associated processes, to manage the entire life cycle of digital identities and profiles for <b>people</b> , <b>processes</b> , and <b>technologies</b> |
|     | <b>A</b>              | Incident Response<br>Planning        | Established and tested plan in place to ensure a swift and <b>coordinated response</b> to a range of cyber-attacks  |
|     | ` <b>`</b>            | Awareness, Education<br>and Training | Invest in educating employees about cybersecurity <b>best practices</b> and the <b>risks</b> and <b>impacts</b> associated with successful cyber-attacks  |
|     | $\overline{\bigcirc}$ | Secure Email Solution                | Implement appropriate <b>email security measures</b> to protect from common cyber-attacks that primarily leverage emails as a vector, such as <b>ransomware</b> , <b>malware</b> , <b>phishing</b> , <b>business email compromise</b> , etc.                |
|     |                       | Security Frameworks                  | Leverage established <b>security frameworks</b> to support the implementation of cybersecurity objectives and to enable the establishment of <b>compliance benchmarks</b> where required  |
|     | <b>~~~</b>            | Trusted Cybersecurity<br>Partner     | Engage with a trusted <b>cybersecurity partner</b> that can support on cybersecurity objectives and cyber maturity journey with specialised deep cybersecurity <b>knowledge</b> , <b>skills</b> , and <b>expertise</b>                                      |
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## Conclusi

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Developing and implementing an effective cyber defense strategy allows an organisation to operate securely while at the same time enabling it to take full advantage of the numerous opportunities brought about by technological advancements.



#### **Understand Current Threat Landscape**

- Threat intelligence
- Risk based approach

#### **Implement Best Practices**

- Develop a cybersecurity strategy and implement an effective layered defence framework to enhance cybersecurity posture
- Apply proven good practices and recommendations

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#### **Anticipate Future Threats**

Anticipate emerging cyber threats of the future

# CyberCX

CyberCX provide the most comprehensive, end-to-end cyber security services offering to enterprise and government across UK, US, Australia and New Zealand.



# End-to-end full service cyber security capabilities.

We believe that cyber security is not simply a question of investing in technology or focusing on specific capabilities. A coherent, holistic approach is required which only an end-to-end provider can offer.



### CyberCX's integrated security solutions

#### Advise, Assess and Assure

#### Secure, Integrate and Transform

#### Manage, Respond and Grow

| Strategy<br>and<br>Consulting | Governance,<br>Risk and<br>Compliance | Security<br>Testing and<br>Assurance          | Identity and<br>Access<br>Management      | Network and<br>Infrastructure<br>Solutions | Cloud<br>Security<br>and Solutions | Managed<br>Security<br>Services    | Digital Forensics<br>and Incident<br>Response | Cyber Capability,<br>Education and<br>Training         |
|-------------------------------|---------------------------------------|---|---|--|------------------------------------|------------------------------------|---|--|
| Strategic cyber<br>counsel    | Business<br>resiliency                | Vulnerability<br>assessment and<br>management | Identity<br>governance                    | Architect, design<br>and build             | Digital<br>strategy                | Managed<br>SIEM and SOC            | Digital forensic investigations               | Education roadmap<br>and programs                      |
| Secure<br>ecosystems          | Risk<br>management<br>services        | Penetration<br>testing                        | Access<br>management                      | Transition                                 | Cloud native engineering           | Managed security<br>engineering    | Incident response                             | Board<br>and executive<br>cyber literacy               |
| M&A cyber<br>security         | Governance                            | Application<br>security                       | Privileged access<br>management           | Improvement and optimisation               | Cloud security                     | Vulnerability<br>management        | Enterprise incident<br>recovery               | Incident response<br>exercises & crisis<br>simulations |
|                               | Compliance and audit services         | Technical assessments                         | IdAM<br>transformation<br>and integration | Zero Trust                                 | Data analytics<br>platforms        | Endpoint detection<br>and response | Privacy                                       | Capability<br>development &<br>culture                 |
| CISO-44S                      | Protective<br>security                | Adversary simulation                          |   | OT and IoT solutions                       | Cloud<br>management                | Digital brand protection           | Cyber threat<br>intelligence                  | Developing cyber<br>skilled workforce                  |

#### End-to-end cyber security capabilities

# Ourcertifications and accreditations

We are proud to be certificated by a range of governing bodies and against a number of international best practice standards.



CyberCX is Cyber Essentials Plus Certified. Cyber Essentials Plus is the highest level of certification offered under the Cyber Essentials scheme. Crown Commercial Service Supplier

CyberCX have been named as a supplier on Crown Commercial Service's Cyber Security Services 3 framework.



CyberCX is a crest accredited member for the delivery of our penetration testing services



CyberCX is a registered PCI Qualified Security Assessor (QSA) company and is one of a select group of organisations registered with the PCI Security Standards Council.



CyberCX is certified to ISO 27001. With a qualified team of ISO 27001 Lead Auditors and consultants we also support organisations and enable them to achieve an effective security strategy.



CyberCX is certified to ISO 22301 and we also have a team of highly specialised practitioners who are experts in supporting businesses to reach and maintain the ISO 22301 standard.

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## Networking

Please reconvene at 15:00

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## **Breakout Sessions**

Please reconvene at 15:00



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REACHING THE PEAK OF HIGHER ED IT TOGETHER

## **Closing Remarks**

Nick Johnson CEO & Co-Founder

