Note:

- Some additional, post-event comments have been added to Tim's slides, by VOLA, to try and help to contextualise some of the content and provide, in layman's terms, an explanation of some of the technical bullet points.

- **This information is provided in good faith. If you need technical advice to help plan your IT suite, and for quotes, contact MICT, or any other IT support company.**

Agenda - important things to think about and MICT experiences

1. What are you trying to achieve?
2. Costs beyond the funding (ongoing, hidden and unexpected costs)
3. Purchasing the right hardware
4. Which is the better hardware solution?
5. Configuration is more important than the hardware purchased
6. WIFI, the good, the bad and the downright wrong ways of implementing
7. Broadband - what's the best solution? Do you have enough?
8. [Charity Digital Exchange](), the cheapest way to purchase software
9. Cyber Security Essentials, what's required, why have it?
10. Your legal responsibilities, security, confidentiality and duty of care
11. Further Information, Questions?

1. What are you trying to achieve?

Public internet access - keeping in touch (e.g. social media, emails, video calls)

Providing internet access, how do you control misbehavior?

IT training suite (learning new skills / IT courses?)

Consider **WHO** will be accessing your IT facilities

- Existing clients / service users?

- General members of the public?

- If you have existing facilities, who tends to use these?

- Do people have to book or reserve access?

2. Costs Beyond the Funding - ongoing, hidden and unexpected

Reliability of the solution

Additional running costs not covered by UKSPF funding?

Consider **WHERE** your facilities will be setup?

- Fixed location? (desk or tables?) Or portable facilities?

- Security and storage

- Privacy for those using your facilities? (if needed)

- Noise and disruption

- Access to mains power and internet provision

3. Purchasing the Right Hardware

Don't 'low ball' on the cost

Know what you're buying

Do you homework, or as for professional help

A solution is more than just buying the correct IT hardware

      The right furniture

      Security of the Hardware (wall mounted), lockable PCs / laptops, etc.

      Storage and charging

3. Purchasing Hardware: The do's and 2 don'ts

DO

- ***CHECK application guidance for eligible/ ineligible costs*** *– there may be things you want/ need that can't be funded through the grant.*
- Shop around (obtain 3 quotes if spending over £2.5k)
- Are required licenses/ software included? Or added on?
- Ensure warranties and guarantees are in place *(grant can't pay for separate warranties)*
- Explore local suppliers in YOUR area
- Check whether any customer support is included *(grant can't pay for ongoing tech support)*

Don't

- Use 'Deals' which could run out.
- Use high street vendors (Curry's, etc.)

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4. Which is the better hardware solution?

Laptops (not Chromebooks)

Desktops

Tablets

Micro PCs

All-in-One PCs

- Processor: **models (higher no. = faster/ better** & therefore more expensive, but worth it**)**

  - **i3 (home – avoid) / i5 (office) / i7 (graphics) or above recommended**

  - Generations: **the 'generation' is as important as the model** (e.g. a newer generation I5 can be better/ faster than and older generation I7

- Windows 10 /11 - which version? **Home, S (avoid both)**, **PRO (recommended)**

4. Laptops

Pros

- Portable

- Space-saving?

- Simple to set up?

- Webcams & microphones

Cons

- Not easily upgradable

  (have shelf life!)

- Risk of damage or theft

- Can be 'fiddly'

Source: https://www.which.co.uk/news/article/laptops-vs-desktops-which-is-better-value-for-money-ag0Da9S9Yecj (Nov 2022)

*** Not recommended: (a) for fixed computer suites, unless space an issue; or
  (b) portable capability required.**

4. Desktops

Pros

- Easily upgradable

- Bigger screens (accessibility)

- Can last longer

- Often better value

Cons

- Static

- Take up space

- May need to add

  webcams & microphones

Source: https://www.which.co.uk/news/article/laptops-vs-desktops-which-is-better-value-for-money-ag0Da9S9Yecj (Nov 2022)

* Recommended device for fixed, open/public-access computer suites.

VOLA

Pros

- Light, portable, handheld

- May not require licenses

- Webcams & microphones

- Affordable

Cons

- Can be 'fiddly' (size)

- Not ideal for 'Office' work

- Increased risk of damage or theft

* Not recommended: (a) for fixed computer suites, unless space an issue; or (b) portable capability required.

4. Micro PCs and All-in-One PCs

If you like the idea of a desktop PC but don't want the bulk, then a mini PC or an All-in-One could be the answer.

As the name suggests, a **mini/micro PC** is a smaller version of a traditional tower.

All-in-Ones are effectively desktop PCs built into the display screen, so there's no separate box/unit
- **Not recommended**

Pop Quiz – Two year solution

A) HP EliteDesk 800 SFF Desktop PC Intel Core i7-2862 3.4Ghz Processor, 32GB RAM, 480 GB HDD, DVDRW, Windows 10 (Renewed) £375

B) HP EliteDesk 800 SFF Desktop PC Intel Core i5-7635 3.4Ghz Processor, 8GB RAM, 480 SSD, DVDRW, Windows 11 £430

C) HP EliteDesk 800 SFF Desktop PC Intel Core i5-4590 3.3GHz / 3.7GHz Turbo Quad Core Processor, 4GB RAM, 500GB HDD, DVDRW, Windows 10 (Renewed) £99.99

D) HP EliteDesk 800 SFF Desktop PC Intel Core i5 3.3GHz / 3.7GHz Turbo Quad Core Processor, 16GB RAM, 1TB HDD, DVDRW, Windows 10 home £180

E) HP EliteDesk 800 SFF Desktop PC Intel Core i5-8635 Processor, 16GB RAM, 240GB SSD, Windows 10 Pro £450

… Which is best? *(Watch recording of session for explanation)*

4. Other tips from session (post-event VOLA addition)

Recommended Brands: Lenovo, HP, Dell.

Not Asus, Acer – may be cheaper, but might not be as durable and replacement parts can often cost more &/or longer waiting time for them.

Example of how to read/ understand the technical description:
HP EliteDesk 800 SFF Desktop PC Intel Core **i5**-8635 Processor,
16GB RAM, 240GB **SSD**, Windows 10 Pro £450

- Processor: after the 'i' number, next digit is 'generation' no. (go for 8 or above, not below).

- Recommend minimum **8GB** of RAM (storage).

- Go for **SSD not HDD** drive – SSD newer technology, so more expensive - but provide better performance and a faster computing experience, plus quieter and consume less energy.

5. Configuration is more important than the hardware purchased

Correct configuration is key to a long life

Imaging solutions / reset systems

Protection systems (antivirus)

Monitoring (of use)

What happens when it goes wrong?

Protecting user's data

Disable auto password saving

Ensure users logout of cloud systems correctly

Ban all USB storage usage (use cloud storage Onedrive, Dropbox, Gdrive)

MS365 Not-for-Profit

- 300 User Mailboxes
- 300 User Access to MS Office WEB
- 10 MS 365 Business Premium accounts (£4.50 PCM for additional)
- MS 365 Business Standard £2.50 PCM

On Premise Software

Kiosk Mode

- "Kiosk mode is a Windows Operating System (OS) feature that only allows one application to run, and essentially 'locks' some other features.
- When a device is set in 'Kiosk' mode, it means the computer is set for a single-use 'session' – meaning multiple users can access the same device without storing data, documents or history.

6. Everything WIFI

WIFI is not broadband!
The bad: Repeaters and Extenders
The Ugly: None Mesh, Multiple single Access Points (AP's)
The Good: Mesh, centrally controlled multiple AP's
Is WIFI better than cable? 600mb v 100mb, 1GB (see next slide)

POE (Power Over Ethernet)
Ethernet over Power (powerline)
Guest networks
QoS (Quality of Service)
WEB Content filtering (important)

6. Interpretation of info on slide 17 (post-event VOLA addition)

- **Cable IS better than WIFI:** provides better internet performance/ speeds - can still get same broadband speed on all devices, which you can't through WIFI

- **Ethernet switches**: can use cable even if insufficient number of ports in IT room to plug individual cables into.

  - Instead, can use Ethernet switches (plug into electrical socket, connection runs down the electrical power line) - plug in one Ethernet switch close to the router, plug another one in the computer room. Then do your wiring to the computers from there.

6. Interpretation of info on slide 17 (post-event VOLA addition)

- Use **Guest network** (so public users can't see your business network) – or, even better, Guest+ (where different public users can't see each other either)

- **QoS** - if using same broadband line for business as well as public use - can set it to limit the proportion of bandwidth allowed for public-use part of network, so that business part doesn't suffer slow internet in periods of high public use.
  - Plus other technical and physical solutions can help (e.g. don't allow public to stream films, etc online)

- **Web content filtering** (1, 2, 3 yr licenses) – blocks inappropriate sites (e.g. adult/ porn, gambling, etc.) Also identifies and blocks virus sites.

7. Broadband What's the best solution?

Comparison

      Average home broadband speeds (120 down / 20 up)

      Average Business broadband speeds (80 down / 40 up)

Always review your broadband provision.

Think about second dedicated broadband line. (for public use)

ADSL (soon to be redundant), Fibre, Fibre to premise,

Lease line (100 on 100 or 100 on 1GB)

WIFI Broadband Point to Point solutions.

4G Portable Hot Spots (if used, make sure it is purchased with unlimited data)

Can your router handle the speed? (Check/ make sure it can)

8. Charity Digital Exchange Programme

Charity Digital Exchange Programme provides discounted charity products to registered non-for-profit organisations

The online catalogue includes Windows operating system licenses, Office Packages, Anti-virus software and lots more.

To benefit from the programme, organisations must register and awaiting verification before purchasing products. For more information please visit charitydigitalexchange.org

Software Examples (prices exclude VAT)

	CDE	Normal Retail Price
Windows 10/11 pro	£14	£103
MS Office standard	£31	£298
Bitdefender Antivirus 1 year		
10 devices	£50	£780
25 devices	£104	£995
50 devices	£184	£1400

9. Cyber Security for Charities

- **What is Cyber Security?**
  - Reducing risk of becoming a victim of a **cyber attack**
  - Protection of devices, services, networks and the information we store

- **What is a Cyber Attack?**
  - A malicious attempt to damage, disrupt or gain unauthorised access

- Cyber Security is increasingly important for charities of all sizes, but **especially small charities** who may not have the IT infrastructure of a large organisation.

10. Your Legal responsibilities.

Are you legally responsible for your public access (usage)

- If no password or login is required i.e. open then NO
- If a password or 'login' is required then YES

- Are you Liable if a 'client' catches a virus? (this is a grey area)
- Did they sign a wavier stating your not responsible
- Do you have posters stating your T&Cs for usage?
- Have to take basic steps to prevent possible infections

Questions?

Tim.Bold@MICTgold.com