

**FROM:** NR  
**Head of Education Technology Services**

**DATE:** 10 May 2020

**TO:** PETER WEIR MLA  
Minister of Education

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**SUB XX/2020:** CSQD COVID 19 - Provision of IT devices for children who do not have access to support their learning at home.

**Issue:** To seek your approval for a proposed initiative to provide IT hardware for children & young people currently without access to such resources at home, supported by criteria which prioritise identified need.

**Timescale:** Urgent – young people may be disadvantaged if they remain without access to suitable IT resources over a sustained period of time.

**Financial/Resource Implications:** There are financial implications and these will be addressed through the business case process. It is estimated a capital spend in the region of £2m will be required and Finance officials have confirmed that this could be made available from the DE capital budget.

**FOI Implications:** This submission is likely to be fully disclosable.

**Statutory Duties Implications:** Not applicable

**Presentational Issues:** The Education Committee, other MLAs, schools and parents have shown an interest in this issue.

**Recommendation:** It is recommended that you:  
(i) note the paper;  
(ii) endorse the EA's three step approach to securing additional resource to

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- meet the needs of prioritised groups of young people; and
- (iii) approve the procurement of portable IT devices as recommended by the EA's analysis of requirements.

## Background

One of the advantages of the education system in Northern Ireland is that it delivers a highly flexible and fully integrated managed service, through the C2k Education Network, EN(ni) contract, which extends across 1100+ schools. This infrastructure means schools have significant capacity to support distance learning.

The EN(ni) contract also includes provision of hardware which enabled a quarter of schools to lend portable IT devices to their pupils when they were required to implement remote learning strategies.

In response to questions on distance learning in a DE survey in April 2020, approx. 96% of School Principals reported that they are using online learning as part of their distance learning provision. Collectively they estimated that approximately 8,238 (3,303 for post primary, 4,863 for primary and 72 for special schools) additional pupils **may** benefit from the loan of a laptop or tablet device. This will be explored further at the next stage of the process of preparing a business case.

## Action being taken in other jurisdictions:

1. The Department for Education in England has launched a strategy - *Get technology support for children and schools during coronavirus*. Eligibility is restricted to a number of closely defined groups – care leavers  
<https://www.gov.uk/guidance/get-help-with-technology-for-remote-education-during-coronavirus-covid-19>  
“200,000 laptops and tablets will be provided for disadvantaged families, children and young people who do not currently have access to them.
2. The Education Minister in the Republic of Ireland has recently announced funding specifically for schools to support devices for Leaving Cert students. A fund of 10 million euro is being provided directly to schools.

3. As part of the 'Stay Safe. Stay Learning' programme, the Welsh Government is working with local authorities to support digitally excluded learners during the current pandemic (any detail of numbers, value or criteria).  
<https://gov.wales/extra-3-million-pounds-support-digitally-excluded-learners-wales>

### **Proposed approach in Northern Ireland**

Officials and officers from the Education Authority are currently working together to determine the criteria and feasibility of providing a laptop / tablet device to children from socio-economically deprived backgrounds, in particular those who may be considered vulnerable and those in examination year groups, for example pupils in Years 11 and 13. Any allocation of laptops would be on the basis of identified need and officials are developing criteria and testing its efficacy with the EA to enable the prioritisation of the above named groups **in the first instance**.

In support of both making optimum use of the resource already provided and prioritising need, the EA have proposed **a three stage model** for lending IT devices to pupils. The more detailed paper is appended at Annex A.

### **Stage 1 – meeting immediate need**

The DE survey estimated that 24% of schools were lending devices to pupils, which suggests that there is resource available in schools which is being under-utilised. Schools may not realise that, with some minor adjustments laptops and tablets which they have on site can be re-purposed for home use. The EA is therefore currently encouraging schools to lend out existing devices. C2k officers can provide guidance and support on the effective management of this process, ensuring the safety of the device and also the safeguarding of data and access.

Based on the most recent data, (Feb 2020), **EA has provided a broad estimate of pupil devices in schools at 12,818**. Whilst this might appear to cover the estimated number of devices required, it is important to note that they are distributed across school sectors **so are not necessarily available where the need is greatest**. See Annex B for breakdown. We also do not know the condition of the devices or the willingness of schools to lend. We understand from EA that schools may be reluctant to do so unless assurances are provided regarding DE / EA commitment to replace damaged / lost devices. It is worth bearing in mind that 12.8k devices represents only 3.6% of the total pupil enrolment. The FSME average in schools is 29%.

## Stage 2 – meeting short to medium term need

As part of recent refresh of equipment for primary schools, **EA have procured 3,664 new laptops**. These laptops are ordered and due to be delivered before the end of May. Once delivered they can, upon direction from the Department, be repurposed for home use. EA have advised that there may be issues with lead in times to receive and prepare the devices for practical use, given the high demand for portable devices during the current crisis. Officials will continue to work with EA to explore ways of ensuring the repurposing of devices can move at pace.

## Stage 3 – meeting longer term need

Assuming that there is likely to be a level of need over and above what schools and the EA are able to provide under Stages 1 and 2, there is merit in preparing for a longer term requirement.

It is difficult to estimate what proportion of devices in schools can be configured for home use. In order to progress with procurement, DE officials have based the following estimate on the 24 April DE survey results to provide maximum scope for flexibility / contingency. There is scope to put in place a staged call-off contract so that we only draw down the number of devices required.

The EA extrapolated the 78% survey response rate to determine that the estimated number of devices translated into c11,500 devices needed across all schools. When the 3,500 devices under Step 2 are deducted, approximately 8,000 additional children **may not** have access to digital devices to support their learning. Some of this need might be met through the **re-configuring of devices**, it is therefore proposed that the EA put in place a call-off contract as a contingency to meet the remaining demand e.g. procure 4k additional devices now with scope to procure a further 4k if required. Stage 3 of EA's proposal is focused therefore on options for the procurement of additional portable devices.

The combination of all 3 stages together provides scope to provide between **3k and 24k devices**, depending upon the condition of said devices over the next few months.

The EA paper explores a range of options taking into account usability and value for money and on that basis recommends the procurement of a **Chromebook at a cost of £250 per unit**. A key benefit to procuring this type of device is that it is compatible with web based applications on both C2K's 'business as usual' managed service and also on the proposed replacement of that service the Education Technology Services Programme which is currently under development.

Pupils will continue to have access to a range of high quality safe and secure digital resources through being able to use their C2k 'log in' and password authentication. In turn, parents will have the peace of mind that their children are safe whilst browsing the internet or working on other applications. These devices allow for tracking and will capture usage data which is currently unavailable for other devices and will therefore provide a further layer of useful analytics. The device can be seamlessly integrated back into the school network. To safeguard against theft or resale, devices can be monitored centrally by EA/C2k and deactivated if necessary.

Costs have not yet been calculated for the provision of Broadband access which has been identified as another factor which may impact on pupils' ability to access online provision. Officials continue to work with their counterparts in other UK jurisdictions exploring the possibility of exempting certain educational sites from data charges and the provision of free or improved internet access for those households who do not have any. Belfast City Council colleagues have been in contact to enquire if they are able to help in this regard; however discussions are at an early stage.

### **Next Steps**

DE officials (subject to your approval), will assist EA colleagues to develop a business case in line with the appropriate approvals process and EA will procure the devices. **Finance officials have confirmed that capital is available** for this initiative and have agreed to prioritise the review and approvals process once they receive a proportionate business case.

EA have confirmed a route to market through a Crown Commercial Education Technology Framework. Lead in times can be confirmed once the business case process has concluded.

In summary, you have indicated verbally that you view this matter as important and want to ensure that a lack of access to the appropriate resources will not be a barrier to learning. The options provided by the EA map out a practical way forward, demonstrating value for money and ensuring the security of our young people whilst working in a safe and protected environment.

By providing IT devices to those who currently do not have those resources at home schools will be supported to maintain their focus on the quality of learning rather than on addressing deficits in resourcing, as children and young people continue on their education journey, wherever their physical location.

## Recommendation

It is recommended that you:

- (i) Note the paper;
- (ii) Endorse the EA's three step approach to securing additional resource to meet the needs of prioritised groups of young people; and
- (iii) approve the procurement of portable IT devices as recommended by the EA's analysis of requirements.

NR

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**Initial request for information and position from the Department of Education in relation to sourcing of devices for children and young people without access at home**

**Introduction**

A number of questions were asked of school principals in last Friday's DE Daily Survey (24/4/20). These additional questions were in relation to the use of online learning as part of their school's continued learning strategy. These questions were asked following concerns raised by Departmental, EA and other colleagues that there may be a number of children and young people without access to a device at home to take part in online learning. Headlines from the data are as follows: Of those schools who responded (78% of the total population of Primary, Post-Primary and Special schools):

- 96% said that online learning was part of their current offering
- 23% said they were lending devices to pupils
- 49% said that all of their pupils had access leaving 51% who either said some didn't or that they didn't know
- When asked how many devices would be required by their school the total aggregate number was 8,238 devices. This can be extrapolated to around 10,500 across all schools.

Potential options. The options identified are:

1. lending of school owned devices (those purchased through school / PTA funds outside of C2K contract);
2. a procurement of additional devices for home use;
3. repurposing of devices already purchased for the primary refresh;
4. rebuild and re-use of potential end of life laptops within primary school;
5. procurement through the current capita C2K catalogue.

The Department has asked for further information to support the development of a policy / initiative to support devices for children and young people without devices at home. The scope of this paper is at the device level. There is a further requirement of 4G hotspots / broadband access for those without.

### **Initial steps – Cross-directorate team**

C2K has carried an initial scope of the options available and made assessment to aid the Department in its initiative development. C2K has involved Procurement and initial discussions have taken place with Finance & ICT colleagues. At present it is understood that any finance would be provided through a covid-19 fund through the Department.

It is clear that a cross-directorate team is required to move this forward and the first recommendation is that this is actioned on approval of this paper. The team should include:

- Education – C2K / Continuity of Learning (SDS) / Special
- Finance & ICT – finance (capital) / ICT / ETS
- Operations & Estates – Procurement / Transport (potential delivery)
- CYPS – Overlap with vulnerable children strategy / disadvantaged children
- HR & Legal – Equality / Legal / Comms

This team should also include a key officer from the Department of Education supporting the strategy. It is important that any solution is compatible with both the business as usual C2K service and the coming ETS solution wherever possible.

### **Initial Scoping information on solutions**

#### **1. Lending of school owned devices**

##### Advantages

- Responsibility for issue resides with school.
- School identifies greatest need.
- Pupils may be familiar with school owned device.
- Quick turnaround.

##### Disadvantages

- GDPR considerations.
- May need to be factory reset.
- May need to be re configured and apps reinstalled.
- May be old generation of devices e.g. ipad2

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- Bought from school funding.
- EA has no right to advise schools on use of school purchased devices.

***Conclusion: These devices are school purchased and therefore decision to lend to pupils resides with the school and not with EA/DE. This should be the first initial solution and is being used by many schools. Guidance can be provided by C2K on the effective management of this process and ensuring the safety of the device and also the safeguarding of the data and access.***

## **2. CCS or Other Procurement for devices for the purpose of home use.**

### Advantages

- Provision of new unused devices.
- Facilitates a specifically defined requirement.
- Requirement may state a specified device or cover range of suitable devices.
- Requirement could include configuration, distribution if required.

### Disadvantages

- Unknown availability.
- Unknown lead time.
- Procurement process may increase time to put devices in hands of pupils.

***Conclusion – This is a feasible option for the provision of devices for home use.***

## **3. Repurpose 3644 newly procured primary laptops.**

### Advantages

- Tangible stock.
- Delivery date known. ( Mid May - end May)
- Builds could be phased and batches issued to meet most pressing need.
- Good quality laptops.
- Pristine condition.
- Build could be defined to meet requirements.
- Devices could be rebuilt onto C2k network when returned to schools at extra cost.

### Disadvantages

- Too highly spec'd for purpose.
- Too expensive for purpose.
- Need to replenish school stock.
- Not centrally managed when at home.
- Only 3644 can be provided.

- These devices have already been requested by Crown Services for use in other government strategies (at present a hold has been placed on this request).

***Conclusion – This is a feasible option for a provision of 3644 devices.***

***Estimated time required – 40 laptops per day per engineer – if 3 engineers provided potentially all available mid-July.***

#### **4. Rebuild and re-use core laptops in primary schools (Built with Never ware allowing chrome access).**

Windows 10 ruled out because of performance issues on these potential end-of-life machines.

##### Advantages

- Tangible stock.
- Items reside in schools.
- Builds could be phased and batches issued to meet most pressing need
- Neverware devices enrolled and can be managed centrally (with some additional security features).
- Can attach to C2k network if devices returned to school.

##### Disadvantages

- End of life equipment.
- Dependent on schools locating laptops.
- Unknown condition of laptop (faulty keyboard, screen, depleted battery).
- Unknown status of PAT testing. (Potential risks re health and safety.)
- Need to replenish school stock for return.
- May be labelled/marked by school.
- Devices need to be fully wiped and rebuilt.
- Devices need to be cleaned before use.
- Organisation seen to be giving out 'old' kit.

***Conclusion: The issue of end of life equipment for home use is not recommended.***

***Potentially up to 7,000 laptops – cost to provision approx. £170k. Time similar to provision above 40 devices per day per engineer.***

#### **5. Capita Catalogue**

##### Advantages

- Capita manages process, deals with supplier, and provides some management and support.

## Disadvantages

- Availability and lead-time dependent on numbers sought.
- Catalogue sales more geared towards small quantities and therefore value for money questionable for large orders.
- Procurement query re contract value and VEAT notice.

***Conclusion: Capita catalogue not suitable for procurement of large quantities of devices.***

## 6. Initial Device Recommendation

Complete a procurement of Chromebook devices for the specific purpose of home use in line with DE initiative identified need.

Chromebook devices provide access to web services, including MySchool, G Suite and O365 as well as a range of Chrome and Android apps and extensions managed by the Education Authority. The Google management console can provide managed features and controls such as SafeSearch. Users will log on to the device with a C2k username and password. Chromebook devices offer EA-C2k a breakdown of utilisation activity based on login times and session duration which is currently unavailable for other devices.

Device Specification (Typical minimum spec) Cost approx. £250.00 per unit  
An accessible and highly durable 11-inch laptop with up to 14 hours of battery life and features for seamless manageability, designed for use in education.

- 11.6" HD (1366 x 768) Embedded Touch, Camera & Microphone, WLAN Capable
- 4GB 2400MHz LPDDR4 Non-ECC
- 32GB eMMC Hard Drive
- 2 USB 3.1 Gen 1 (1 USB 3.1 Gen 1 Version Available)
- 2 USB Type-C™
- 1 Wedge Lock Slot
- 1 Headset/Mic Combo Jack

## Educational Benefits of Managed Chromebooks

### Learner

- It's a web enabled plug and play device.
- There is no special training required: If you know how to access the internet from a laptop you know how to use a Chromebook.

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- EA-C2k authentication built into the device – learner uses familiar EA-C2k username and password.
- Safe Google search is enabled on the device by default. While SafeSearch is not a filtering solution, it helps to filter out explicit content in Google's search results for all your queries across images, videos, and websites. While SafeSearch isn't 100% accurate, it's designed to help block explicit results, like pornography, from your Google search results.
- Default set to cloud storage which means that work at home will not be lost upon return to school.
- Long battery life means Chromebooks last an entire school day.

#### Parent/Carer

- With EA-C2k authentication there is peace of mind as the learner is using safe search whilst browsing the internet.
- Opportunities for parents/carers to engage in young people's learning.

#### Teacher/School

- Participation and inclusion for all learners.
- Creates confidence that all learners have access to learning opportunities set by the teacher.
- When normal schooling returns multiple students can use the same device and have their own personalised experience.
- The device will seamlessly integrate back into the school network.

#### Education Authority/DE

- EA-C2k can track user interaction with device.
- Device ID can be associated with individual student.
- Chromebooks are less of a target for malware and viruses.
- Safe search is enabled on the devices meaning inappropriate search results will not be returned.
- Ability to apply restricted YouTube access.
- To combat theft or resale, Chromebooks can be managed centrally and deactivated if necessary.

## 7. Initial scoping timeline for procurement

This is provided as a guide. Specific pricing and timelines are dependent on numbers and specific types of device. More detailed information can be provided once further detail is provided by the Department.

The normal lead time in normal circumstances for such a process would be 6 to 8 weeks. This is dependent on the availability of stock. Ordering in smaller batches and working with suppliers may reduce this further. Procurement have started an initial scoping exercise on this with potential suppliers.

Chromebooks may need build / enrolment time from Capita once devices arrive similar to those mentioned above.

### Next steps

1. Set up a cross directorate team to progress the procurement, build, testing and distribution of devices.
2. Ask DE to advise on quantity, criteria and prioritisation of most need based on policy decisions.
3. Define specification of device.
4. Procurement to advise on procurement route/framework.
5. Procurement to advise on lead times.
6. EA /DE to establish guidance for distribution, ownership, asset tracking etc.
7. Define any requirement for Capita (build, enrolment, testing etc).
8. Produce supporting guidance on set up and access to online resources.
9. Determine support procedures.

Where there is an urgent need prior to delivery of home use devices EA could consider advice around following:

1. Schools continue to lend school purchased devices where they exist. C2k will facilitate by producing guidance to highlight and mitigate against risks.
2. If schools identify an urgent need, a number of new primary refresh laptops could be provisioned and issued.

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**ANNEX B**

**EA ESTIMATE OF PPIL DEVICES AVAILABLE IN SCHOOLS BASED ON  
FEBRUARY 2020 DATA**

<b>School Sector</b>	<b>Estimated No. of devices needed by schools (based on 78% of schools) per survey on 24 April 2020</b>	<b>Estimated No. of devices needed by schools (based on 100% of schools)</b>	<b>EA estimate of devices available within schools currently</b>	<b>Difference b/w devices available in school and (100%) school estimate of need</b>
Grammar	431	553	2,852	-1,826
Secondary	3,218	4,125		
Primary	5,254	6,736	9,715	+2,979
Special	39	50	251	+201
<b>Total</b>	<b>8,942</b>	<b>11,464</b>	<b>12,818</b>	<b>+1,354</b>