



## Procuring Digital Technologies



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### Introduction

This guide provides an overview of the options available for New Zealand schools as they procure digital technologies and is intended for use by technology decision-makers in schools.

Digital technologies are a significant part of the overall spending by schools, or, in the case of 'Bring Your Own Device' (BYOD), parents and caregivers. It is therefore important to

ensure that purchases clearly support the intended learning vision and approaches and have been well researched.

You need to be able to answer two key questions before procuring digital technologies:

- Is your purchase sustainable?
- Are you procuring the right products and services at the right prices?

This guide complements the [Technical support and procurement pages of TKI's Enabling eLearning site](#).

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## Contacting the Connected Learning Advisory

Once you have read this guide you are welcome to contact the Connected Learning Advisory to get more personal assistance. We aim to provide consistent, unbiased advice and are free of charge to all state and state-integrated New Zealand schools and kura. Our advisors can help with all aspects outlined in this guide as well as provide peer review of the decisions you reach before you take your next steps.

- Call the Advisory on 0800 700 400
- Complete the [online form](#) in the Advisory Helpdesk
- View more information and resources on our website - [www.connectedlearning.org.nz](http://www.connectedlearning.org.nz)

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### Sustainability



Planning ahead is a critical part of the procurement process.

Procurement should be thought of as an on-going, long-term process, rather than a series of one-off events. To ensure sustainability of your technology procurements:

#### Asset register and management

Create and maintain an asset register so you know exactly what you have:

- Include hardware, software/apps, licenses, warranties and consumables such as ink and batteries.
- List the location, age, replacement date, warranty status and serial numbers.
- Share responsibility for keeping the information up to date.
- Most schools will find a simple spreadsheet is adequate for this task. Very large schools, with many hundreds of assets, may wish to use a specialised ICT asset manager

such as those listed on [Capterra's IT Asset Management Software page](#).

- Adopt a team approach to ensure:
  - Continuity of systems and processes that inform the way you procure technologies
  - Technical, curriculum, leadership, financial and operational aspects are considered.

### **Five year plan**

Have a 5 year plan that is reviewed annually and includes:

- Evaluation of whether the technology is still worth maintaining.
- How the technology supports the school's educational vision.
- A summary of what expenses need to be budgeted as capital or operational costs.
- Disposal or replacement plans, protocols and costs.
- Evaluation of the procurement process.

### **SNUP Maintenance**

The Ministry's guidance for [Maintaining your upgraded network](#) should be followed to ensure you keep your ICT network maintained to the current Ministry standard.

## **The Procurement Process**



### **Understand your needs**

Be clear about the intended vision and desired approaches to learning. Ensure you are able to justify your procurement in terms of how it will support and improve learning for your students. Useful resources for you to use in your planning and learning include:

- [The CLA's Strategic Thinking Roadmap](#)
- [Strategic Planning Page on the Enabling e-Learning website](#)
- [The e-Learning Planning Framework](#)

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### **Involve others**

Take a team approach to procurement. The risks and complexities are too great for one person to be able to determine and manage effectively. Consult with staff and students about what they think their needs and preferences are. Make sure you include your community so they understand the planning that has led to the school's decision.

### **Research - sources of Information**

Look for examples, experiences, reviews and recommendation from a variety of sources such as a range of commercial suppliers, other schools and online communities. To do this you could:

- Talk with teachers in other kura or schools that have similar technologies to understand their experiences.
- Add a discussion topic to the Technologies section of the [Virtual Learning Network](#).
- Read online reviews of the technology, ideally about its use in kura or schools.

### **Overall cost includes time**

The purchase cost of digital technologies are just part of the overall cost. Integrating digital technologies takes a lot of time. The time costs include:

- Time to get the technologies set up and working
- Time for maintenance
- Time for professional learning
- Time for the end-user as they learn how to use the technology.
- Time to manage record-keeping and evaluation

The various costs in people's time are usually greater than the initial purchase cost.

### **The Price:Performance Ratio**

With technology decisions you are often weighing up the ratio of price to performance. Knowing the level of performance, or quality, that you require is therefore important.

Budget constraints are a fact of life for schools but decisions that are made due to a low price will commonly be at the cost of

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poorer performance. To ensure your procurement is at the correct price:performance ratio for you:

- Trial the technology in situations as close as possible to real life.
- Find out from others what their experiences have been.
- Determine the essential elements or non-negotiables that you will accept as your 'threshold of performance'. For example, specify a minimum screen size for a 1:1 device or service targets for an ICT support provider.
- Use the list of possible costs in the section 'Cost Considerations', below, to estimate the cost of ownership over the lifetime of the digital technology.
- Use a checklist of requirements to ensure you have covered everything off in making your decision.

### **Short-term Price vs Long-term Value**

The overall costs during the lifetime of the technology need to be determined. Technology that costs more up-front but lasts longer may give better value than something that has a lower initial cost but has a shorter lifetime. Alternatively, something may cost more up-front but will have lower running costs.

The cost of not having the technology available, such as network or device downtime due to hardware failures should be considered. You should:

- Consider redundant components, having some spares available to use in case of failures and rapid-response service contracts
- Get independent advice on 'down-time' risks and the need for service contracts

### **Technical Support**

Your school's relationship with a service provider and their ability to respond to technical issues is critical to support the use of technology in teaching and learning. Ensure that your service provider can support the technologies you are procuring. Any good service provider should be able to support a range of digital technologies. See our [Technical support requirements guide](#) for further information.

## Cost Considerations

Digital technologies can be complex systems of interrelated things. For example, if you are going to add some file storage then you need to consider how you will back it up. Or, if you are going to add some mobile devices, then you need to consider how well the wireless infrastructure will cope. Often the consequences of procuring one particular technology are difficult to predict, so ensure you are consulting with others to understand what the knock-on effects of your particular procurement might be.

Technology changes rapidly and innovations are difficult to predict. You need to consider the following cost items:

- Hardware and Software:
  - Cost of the hardware itself, peripherals and incidentals such as cases, software and apps.
  - Shipping costs.
- Insurance:
  - Determine if additional loss or accidental damage cover is required? See the [Ministry of Education's Guidelines on Contents Insurance](#).
- Warranties:
  - Schools are not covered by the Consumer Guarantees Act so there is no legal requirement for any warranty to be provided.
  - Find out what warranty level the technology comes with and if there are options to increase it.
  - Having a warranty to cover hardware failures means the overall technology spend is more predictable.
- Up-front time/costs:
  - Planning, unboxing, labelling, configuring, documenting, testing, tweaking, initial professional learning requirements and project management will need to take place.
  - Plan for who will do these tasks, how long they will take and what the cost will be.

- On-going time/costs:
  - Plan for the time/cost needed to patch, upgrade or otherwise maintain the technology.
  - Estimate the cost of consumables that will be required over the lifetime of the technology (eg hard drives, power supplies, batteries).
  - Estimate the running costs (eg power, on-going professional learning, license subscriptions).
  - Your suppliers should be able to help you predict these costs.
- Lifetime:
  - Plan for how long the technology will last in your environment?

### **Getting Quotations or Going to an RFP**

Get at least 3 quotes when procuring digital technologies. Your BoT may insist on this. This will ensure you pay a fair price as well as surfacing alternative solutions. When getting the quotes:

- Say what your planned technological solution needs to achieve.
- Be specific about your needs by itemising critical features, components or services.
- Give your suppliers the opportunity to quote for a 'recommended alternative'. The alternative quote may be better value and still fit your requirements.

Suppliers will commonly approach schools with recommendations for new purchases. To help you understand their recommendations, the service providers should be able to explain in simple terms:

- What ICT equipment needs buying.
- What the 'business/educational case' for it is.
- What the risks are if the work does not go ahead.
- What it will cost and provide an itemised breakdown of those costs.

The itemised breakdown should include:

- Details and specifications of items to be purchased.

- If labour is involved, the number of hours and hourly rate.
- While budgeting in a contingency fund may seem sensible, this should not be necessary if thorough, prior research has been completed.

Effective strategic planning should prevent last-minute procurement suggestions from your ICT support providers.

For more complex or costly requirements you could put out a 'Request for Proposals' (RFP). Procurements over \$100,000 should go through an RFP process and be advertised on the Government's open-tender website, GETS. More information about this is available [from this Ministry guideline](#).

If you are upgrading an existing system seek independent advice and competitive quotes.

For example, if you are advised that that you need a new server, then the following strategy will ensure you get the best outcome:

- Get a written quote for 'supply and install'.
- The quote needs to be itemised and include the cost of the hardware and the cost of the labour.
- Get three quotes for supplying the hardware only.
- Get a second opinion that the recommended upgrade is required.

## Consider Your Procurement Options



### Family-funded

Many schools, in particular lower decile, are providing a number of digital devices at school for students to use for the day or are setting up a 'lease to own' arrangement for students. For example the Manaiakalani Cluster is a community of collaborating schools. Most families within the Manaiakalani Cluster do not have the resources to provide devices for their children. Currently families are all paying \$3.50 per week over 3 years to own their child's device.

If you are planning any model where parents are expected to fund devices you will need to consider the approach you will take for those that cannot afford to purchase devices. Many schools have long term payment schemes and hardship funding.



A school can not make it compulsory for students to fund and bring devices; the Ministry advises “It is not appropriate to require students to purchase items such as tablet or netbook computers or smartphones. Students should not be excluded from participating in courses if they are unable to provide their own items such as a tablet or netbook computer”

### **All of Government**

New Zealand Schools are eligible to join the [All of Government](#) (AoG) purchasing scheme. Schools are encouraged to consider the All of Government scheme because suppliers to AoG are contractually obliged to ensure that their products are not available at a cheaper price through any other channel.

### **Directly from the Technology Vendor**

A technology vendor (manufacturer) may be able to sell directly to the school, often via an online store, at a reduced price for the school. Typically, though, the vendor prefers to channel things via a network of resellers who will usually have received product training or have particular partnership qualifications to be able to resell the vendor’s product.

### **Resellers**

A good reseller should be able to listen to you about your situation and needs and then provide useful advice and guidance about your procurement options. This will help ensure you are purchasing the technology that best meets your requirements. The reseller may also provide the services that are needed to get the technology properly set up and used.

### **Second-hand**

There is an attractive up-front cost-saving to purchasing second hand. But, you may need to:

- Keep some swap out units as the technology will have no warranty.
- Reimage the machines or set the units back to factory settings.
- Purchase power supplies, mounting brackets etc.
- Ensure the second-hand technology is not so old that it will need to be replaced too soon to make it worthwhile.

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## Donated Equipment and Services

Accepting donated equipment is tempting - it's free! Or, is it? In particular with donations you should consider:

- The time it might take to configure or integrate.
- The usefulness of the equipment itself. Does it meet the threshold for performance needed to be viable at your school?
- Donated items tend to be older technology and therefore less fit for purpose in the fast changing world of technology.
- If a well-meaning volunteer of services (eg web design or server configuration) will be able to provide the on-going support that may be required.
- If the procurement was funded through a donation, will this happen again? If not, what is your plan to fund the replacement in a different way?

## Bulk-buys with Other Schools

Leveraging the purchasing-power across a number of schools may enable you to negotiate a lower price.

## Applying for Grants

The Department of Internal Affairs keeps an index of [Societies that Make Grants](#).

## Local versus international suppliers

We now have easy access to overseas online marketplaces such as aliexpress.com. These sites can provide cheaper alternatives to procuring from a local reseller. The Commerce Commission offers the following quick tips for buying online:

**Be savvy:** if you have any doubts or the offer seems too good to be true, don't proceed.

**Know who you're dealing with:** search the seller online, look at their online auction feedback, check review sites, social media, [Scamwatch](#) and similar to see what other customers have experienced. Check where the business is based and that it provides its name, street address, phone and email details.

**Know what you're buying:** read the description of the goods or services closely, especially any fine print. Read

the terms and conditions, including what happens if there's a problem.

**Work out what it will cost:** factor in shipping, exchange rates, insurance or any applicable extra charges, such as customs duty.

**Shop around:** search online and compare prices, terms and conditions.

**Protect yourself:** only buy if you are comfortable with the payment method and keep a record of the transaction details. Purchasing by credit card or a secure payment system like PayPal should give you more protection than a cash transfer.

Before purchasing from an international supplier, consider:

Finding out from others if they have used or know about the online provider and what their experiences are

How easy will it be to return faulty products in future or get other kinds of after-sales service?

How can you be sure the quality of the products is good enough?

How easy will the overall transaction be?

### **Leasing vs Purchasing Outright**

The two big advantages of leasing are:

- You pay for the products over their lifetime rather than needing to find the money upfront.
- You gain a predictable replacement cycle (usually three years).

The cost of leasing is typically higher than purchasing outright. At the end of the lease period you either keep the goods, send the goods back or pay extra money to keep them, depending on the type of lease that has been arranged. Leasing IT hardware does not typically provide any protection against theft, malfunction, damage etc. You will still need to consider insurance and warranties.

Buying goods outright will usually be cheaper than leasing as you are only paying for the items themselves and not the finance or administrative costs of the finance company.

Some items have life cycles that are not well suited to the three years often associated to leasing. For instance data projectors, screens, wireless access points are all items that you might enjoy 5 or more years of use out of if you own them outright or were able to arrange a five year lease period.

The table below summarises the advantages and disadvantages of buying and leasing:

BUYING	LEASING
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**Advantages**

- |                                                                                                                                                                                                        |                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Flexibility in the use and replacement of assets</li><li>• Unrestricted access to benefits of ownership</li><li>• May be less costly in the long run</li></ul> | <ul style="list-style-type: none"><li>• Risks of ownership are retained by the lessor</li><li>• May offer a cheaper method of acquisition</li><li>• Minimises obsolescence concerns</li></ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Disadvantages**

- |                                                                                                                                                                                                           |                                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Requires initial capital outlay</li><li>• Possible financial and operating issues if assets become obsolete well before the end of their economic lives</li></ul> | <ul style="list-style-type: none"><li>• Limits control of assets</li><li>• Lease payments may be excessive</li><li>• Short lease terms may force lessees to unnecessarily surrender assets well before the end of their useful lives</li></ul> |
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This guide has been produced in response to a number of specific queries about procurement from schools. It should not be read as a recommendation or endorsement of any specific product. The Connected Learning Advisory is a Ministry of Education supported service that provides schools with technology information relevant to their queries and does not recommend one product over another.



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