



**MINISTRY OF EDUCATION**

*Te Tāhuhu o te Mātauranga*

# **SCHOOL NETWORK UPGRADE PROJECT**

## **Information for schools**

## Welcome to the School Network Upgrade Project (SNUP)

Schools need a robust network infrastructure to make full use of ultra-fast broadband and to maximise teaching and learning opportunities. SNUP provides a subsidised upgrade of your school's network infrastructure in order to maximise these benefits for your staff and students.

### What SNUP provides

The Ministry of Education will fund 80% of the cost to upgrade your school's data cabling, switches and cabinets.

The upgrade includes:

- A fully-funded audit of your school's current infrastructure.
- A network design proposal.
- A certified cabling installation with a 20 year warranty.
- Additional new power outlets at each *new* data outlet.
- Managed Ethernet switching covered by a five-year, next-day replacement warranty.
- A suitable backup device.
- An Uninterruptible Power Supply (UPS) where this is required, to protect your switch and server from power fluctuations.
- A new server where there is no existing server.\*
- Provision of a network documentation manual.

The offer does not include desktop or laptop computers, nor does it include depreciation on switches.

\*Existing servers and UPS are generally kept in use and eventually replaced by the school as part of the normal depreciation cycle.

### Your school's contribution

Before an audit of your school's existing infrastructure has been carried out, it is not possible to provide a dollar-value estimate for your contribution. This is because there are many factors affecting the final cost: size of campus, construction of buildings, state of existing network, distance from a main city, etc.

We do know that, based on recently-completed upgrades, 84% of schools pay less than \$100 per student, with the average cost being \$65 per student. In light of this we suggest you put aside \$85 per pupil from your 5YA (or other funding source) to cover cabling costs, as well as \$15 per pupil to cover the cost of switches (this portion can be claimed against your furniture and equipment grant). These costs are only approximate at this stage; as stated earlier a more accurate cost estimate will be provided following the audit.

Once the final cost of your school's upgrade is known, you will be asked to confirm your ability to pay 20% of the total, with the Ministry funding the balance.

### **Working out the final cost**

When your school accepts its invitation (by returning the green Agreement to Audit form), a fully-funded audit of the existing network is carried out. Following this, your school will be presented with a best-case/worst-case scenario for approval.

Then:

- Your school decides whether to proceed with the upgrade.
- The Board of Trustees confirms sufficient funding is available.
- The job for upgrading your school goes to tender.
- A final price is accepted and a contract signed between the Ministry and the installation company.
- Your school signs a Memorandum of Understanding with the project management company stating its intent to support the upgrade processes.
- Your school signs a Contribution Form committing to its 20% contribution.

### **How long will our upgrade take and when can we start?**

How long your school will wait for an upgrade will depend on the size of your school, how quickly you return the Agreement to Audit form, and how many other schools have responded ahead of you.

Installation will be scheduled in consultation with your school to begin as early as possible, depending on the availability of installers in your area. The actual upgrade process typically takes 4 to 12 weeks from commencement to sign-off, depending on the size of the school.

### **Who will oversee the upgrade?**

The Ministry has contracted TorqueIP to manage your installation. They will oversee all contractors working at your school and are your first point of contact.

*TorqueIP*

info@torqueip.co.nz

09 5264396 (phone)

09 5264394 (fax)

PO Box 132234, Sylvia Park, Auckland

### **What happens next?**

1. Once the Ministry has received your Agreement to Audit form, your assigned project manager will send you a questionnaire for completion. This questionnaire screens for potential property issues such as asbestos, leaky buildings or heritage sites.
2. Your Board of Trustees will receive a network design approximately 2 weeks after the audit is carried out. At this stage a best-case/worst-case estimate will also be provided.
3. Contact your School Property Advisor (SPA) – or other funding sources if applicable – to get approval for your contribution. State schools usually pay for their cabling contribution out of their 5YA.

- Following receipt of the network design, your Board of Trustees has up to two weeks to decide whether to take up the best-case/worst-case offer. A faster decision will enable us to get the procurement process underway sooner – remembering that schools are added to the SNUP waitlist on a first-come first-served basis.

### Overview of process

Average Time	Activity
> 2 weeks	Your school is invited to upgrade as part of the SNUP project. Agreement to Audit form is completed and returned.
> 2 weeks	Your school is contacted to complete a questionnaire and to schedule a network audit.
> 6 weeks	Audit takes place and a proposed network is designed.
> 2 weeks	Network design is submitted for your approval.
> 2 weeks	Your Board of Trustees confirms they wish to proceed.
> 4 weeks	Tender documents for your school's upgrade are released. Contractor selected and final price for upgrade confirmed and approved.
4-12 weeks	Upgrade takes place. Network switches, and servers if required, are installed and commissioned. Smaller schools typically require less installation time whilst larger schools require longer.
> 2 weeks	School network documentation and plans are updated, work completion signoff between all parties.

### SNUP upgrade – installation process

- The project manager will schedule the installation in consultation with your school and provide additional information regarding the installation.
- If you are paying your contribution from your property budget (5YA), the National Office will open a project directly from your 5YA.
- If you are *not* using your 5YA funds, payment (including GST) must be made to the Ministry of Education National Office on receipt of an invoice.
- If a server is being installed, this will be done shortly after the cabling installation. Data migration will be carried out from any existing server.
- Existing desktop and laptop computers will be connected to the network.
- On completion of the installation you will receive:
  - Full documentation detailing all aspects of the installation.
  - System administrator training, if a server was installed, and a manual which will include information about the installation and the server operating system (if applicable).
- On completion of the upgrade the school and Board of Trustees will be asked to sign a closure certificate. This confirms that the installation has been completed in accordance with the contract.

8. Your 20% switch and server cost can be claimed back from your furniture and equipment budget.
9. There is a defect-free installation warranty period of 12 months, during which any problems of workmanship directly associated with the installation will be resolved by the installer. All hardware is covered by the manufacturers' warranties.

**What we require from you:**

1. Your school will be required to nominate someone to be the main point of contact for the project manager and installers. This person must be readily contactable both during school and after hours.
2. Your school must provide access for installers during school hours and if necessary outside school hours (e.g. weekends and holidays). Your project manager has overseen many network upgrades and is experienced at minimising disruption for staff and students. In return, we appreciate your cooperation with the project manager to ensure the installation proceeds smoothly.
3. The school contact person may be expected to represent the school at weekly site meetings with project managers and installers.
4. The installers may schedule one or more power outages to connect the new electrical outlets and circuits. A suitable time outside of school hours will be agreed with your nominated contact person.
5. Every effort will be made to limit noisier activities, e.g. drilling, cutting and hammering, to outside of school hours. However, to avoid delays sometimes this work may need to take place during school hours. This will be agreed with your nominated contact person.
6. Before the upgrade begins, you or your nominated contact person must tell the project manager about any events that could potentially disrupt the installation process, e.g. school galas or exams. This will enable the project manager to plan installation work accordingly.
7. Before the upgrade begins, your nominated contact person must tell the project manager about any site conditions that could affect the installation. Failure to do so may result in significant delays to, or even deferment or cancellation of, your upgrade. Examples include:
  - Potential hazards e.g. asbestos.
  - Heritage-registered school buildings.
  - Environmental precautions to protect flora and fauna.
  - Positions of any known underground services i.e. sewerage, water pipes etc.
  - Other planned building and infrastructure works.
  - Other open contracts that may impact the project delivery, including building remediation or earthquake strengthening work.
8. Any site preparation that your school has agreed to do within a particular timeframe (e.g. clearing rooms for installation work) must be done within that timeframe to avoid delay to your installation.

9. If a server is being installed, your school must provide the project manager with a list of all computers and their specifications at least one week beforehand. If any computer is faulty and cannot be connected, the schools will be responsible for getting this fixed and connected to the server.
10. As the server installation team will only be onsite for a short period, please ensure that computers that can be networked are made available. Please ensure the appropriate staff and your local IT support person is available for the training session.

### **SNUP: frequently asked questions**

*Our school is planning a new building/building upgrade. Does the Ministry subsidy include installing cabling for new building projects?*

Funding provided for new buildings and building upgrades already covers cabling. Therefore planned construction work is not included in the scope of your SNUP upgrade. The Project Manager needs to know about any planned new buildings or building upgrades so they can be incorporated into the overall network design.

*Can we use our school's usual data installer for our upgrade?*

If your cabler is a Ministry-approved data installer, they can bid for the work along with other installers.

*Our estimated contribution is higher than we expected. What can we do?*

It is in everyone's interest to keep the prices down. The project manager estimates your contribution based on building information about your school and information sourced from the questionnaire and on-site audit. Estimates are based on cabling all school buildings used for teaching, including libraries and computer suites, but excluding areas such as caretaker offices and school dormitories.

The cost of cabling increases significantly with the number of separate geographically dispersed buildings. If some of these buildings are unused and/or do not require cabling, please inform the project manager.

*Why doesn't the Ministry fully fund the upgrade?*

Schools are currently allocated funding for data cabling through their 5YA budget, and are therefore expected to allocate part of it towards this project. A contribution by the school means that there will be local ownership of what is a large project. It also enables a larger number of schools to be supported.

*What if our school doesn't have enough in our 5YA budget to cover our share of the upgrade?*

If you can't reallocate your 5YA expenditure and don't have sufficient funds remaining in your budget, you will need to investigate alternative sources of funding. Otherwise you will need to postpone your upgrade.

*What if I want more than the standard SNUP installation?*

A number of schools have asked for more outlets or additional features such as VoIP systems to be installed. The project managers are able to assist with additional features if required. However, the Ministry's contribution will only cover the standard upgrade.

*Can we make all the installed data outlets live?*

At completion of the job at least 50% of installed outlets will be live, i.e. you will be able to plug a computer in and be immediately connected to the network. To make them *all* live the school will need to purchase additional switches and patch cords. Network switches are available to the school at a discounted price. Discuss your requirements with the project manager.

*Can we change specifications of products to be installed?*

The Ministry has upgraded hundreds of schools with sizes ranging from 11 to 3,000 students so most schools' requirements are well understood. The specification used will vary according to your school's size, however, all jobs are completed to the same standard. Any changes to product specifications may delay your school's installation. They must also comply with Ministry standards and your school must cover any additional costs.

*Can we change the brands of the products that are to be installed?*

The Ministry has secured a limited range of competitively priced products for all upgrades through a central procurement process. Other products will not be subsidised so your school will need to provide full funding for these.

*What about wireless networking?*

The Ministry is currently considering options around wireless networking. There is a degree of complexity in designing and operating a wireless network and each design needs to be tailored to the layout and construction of an individual school. For this reason we need to investigate the best solution that will suit the majority of schools going forward.

It is anticipated that in the medium term schools will need to run hybrid networks where access is provided by both wired (Ethernet) and wireless technologies. We will keep schools informed of progress on wireless as options become clearer in the future.

*Can we retain any existing IT infrastructure components?*

Depending on the quality of your existing installation, some components may be retained, e.g. properly installed Cat 5e cabling and appropriate switching.

*Can we request changes after the fixed price contract is signed?*

Yes but you must request variations in writing and cover any additional costs. You should not request installers on site working on the upgrade to undertake extra work at their own cost as 'free' services to the school. You should also refrain from asking them to 'look at' hardware that, though it may not be working, is covered by service agreements that should be used instead.

*What should we do if we're not happy with the contractor or how the installation has gone?*

Contact your project manager in the first instance to discuss any issues. If your concerns are not resolved to your satisfaction, please contact the Ministry SNUP Project Manager.

*What happens after our upgrade?*

Ongoing maintenance of your network, like any other property asset, must be included in your school's 10 Year Property Plan (10YPP). As cabling installation is covered by a 20 year performance warranty (excluding fair wear and tear or damage) maintenance costs should be minimal.

Equipment such as switches and servers will need to be replaced as technology advances and school requirements change. Typically, switches and servers should be upgraded every three to five years. Please note that replacement costs will not be subsidised by SNUP. You should plan for replacements from your furniture and equipment budget.

*Can I get my school's power upgraded at the same time?*

The SNUP project is a data project. SNUP upgrades power outlets in schools, where required to support the new ICT infrastructure capability. The upgrade of power outlets is within scope only where associated with the installation of new data outlets.

If our SNUP auditor identifies that there is a need for a power upgrade to support the IT cabling network upgrade, then this will be conveyed to the school. The school should contact their School Property Advisor (SPA) to seek approval to undertake this work. This work falls outside of the scope of SNUP and will need to be 100% funded by the school.

*What happens if the SNUP auditor is concerned that asbestos is on the school site?*

If the auditor suspects that there is asbestos then the project management company will alert the Ministry. The Ministry will fully fund an asbestos audit of the school site. The final report will be sent to the Ministry, the project management company and to the school. Where the audit identifies hazardous asbestos that will be disturbed by the installation, this will need to be removed. Contact your School Property Advisor (SPA) to seek approval to undertake this removal work. Removals are funded similarly to other emergency health and safety issues.

*What happens if the installer damages school property or cuts services while doing trenching work?*

If the installer damages property or cuts essential services contact the project management company immediately. The school then needs to contact their School Property Advisor (SPA) who will recommend the correct course of action to follow. Responsibility for costs will depend on the specific situation.

*Any further questions? Email [network.upgrades@minedu.govt.nz](mailto:network.upgrades@minedu.govt.nz).*