

# BYOD and 1:1 PREPAREDNESS CHECKLIST

## Community

Item	Details	School Notes
Communication with/whānau and community	<ul style="list-style-type: none"> <li>● Aim of BYOD plan is communicated clearly as part of the vision for learning</li> <li>● There is deliberate engagement with parents/whānau/community</li> <li>● Final BYOD plan is communicated well in advance<sup>1</sup></li> <li>● Whānau are clear about how BYOD will be funded</li> <li>● Parents have a shared understanding of how BYOD may affect use at home (for example, manage device use appropriately; consider a joint agreement for use)</li> <li>● Cyber-safety is discussed with the wider community</li> </ul>	
Communication with students	<ul style="list-style-type: none"> <li>● There is deliberate engagement with students</li> <li>● Aim of BYOD plan is communicated clearly with students</li> <li>● Procedures and policies for BYOD are known by students</li> </ul>	
Trial BYOD	<ul style="list-style-type: none"> <li>● Consider a BYOD trial where devices are brought into school and systems are trialled (for a day/week/term or with a particular class or group)<sup>2</sup></li> </ul>	
The first week/month	<ul style="list-style-type: none"> <li>● Set expectations at an appropriate level<sup>3</sup></li> <li>● Allow for extra technician time</li> <li>● Allow time for staff to feedback<sup>4</sup> potential problems as they occur</li> <li>● Get feedback from sample of students</li> </ul>	

## Learning and Teaching

Item	Details	School Notes
Strategic planning	<ul style="list-style-type: none"> <li>● School charter, vision, goals and curriculum provide the primary purpose for implementing BYOD</li> <li>● BYOD needs to part of a considered and deliberate plan to improve teaching and learning</li> <li>● The rationale and actions should be capable of being articulated clearly to all audiences</li> <li>● SLT are able to articulate how BYOD will improve learning</li> <li>● BYOD implementation is part of Strategic Plan for teaching and learning</li> <li>● BYOD planning addresses the needs of all learners and supports inclusive practices for all learners</li> <li>● Professional learning for teachers is included in strategic planning</li> <li>● e-Learning Planning Framework is used to evaluate your e-learning capability</li> <li>● Funding for BYOD is sustainable, equitable and legal</li> </ul>	
Teacher planning	<ul style="list-style-type: none"> <li>● Teachers are able to articulate how BYOD will improve learning</li> <li>● Teachers understand and are prepared for the change in nature of teaching and learning that BYOD facilitates:               <ul style="list-style-type: none"> <li>○ Dept/faculty/syndicate/team planning</li> <li>○ Individual planning</li> <li>○ Planning addresses the needs of all learners and supports inclusive practices</li> </ul> </li> <li>● Alternative planning takes place until ability to use BYOD in own context</li> </ul>	

	<p>(teacher/subject/location) is proven</p> <ul style="list-style-type: none"> <li>• Teachers are familiar with procedures and policies for BYOD</li> </ul>	
Teacher professional development	<ul style="list-style-type: none"> <li>• Ongoing professional learning for teachers with regards to digital technologies takes place</li> <li>• Opportunities for both formal and informal professional learning are available</li> <li>• Teachers are aware of online communities to support their professional learning</li> <li>• Consider opportunities for incorporating the effect BYOD has on teaching and learning into annual appraisal</li> </ul>	
Cybersafety and digital citizenship for learners	<ul style="list-style-type: none"> <li>• Students have access to cybersafety opportunities. The resources provided by the <a href="#">Netsafe Kit for Schools</a> and <a href="#">Netsafe's Digital Citizenship Capability Review Tool</a> are very useful.</li> </ul>	

## Policies and Documentation

Item	Details	School Notes
Review existing policies and procedures	<ul style="list-style-type: none"><li>● Critique existing policies and procedures with regards to BYOD. BYOD may be accommodated in existing policies or be in a policy of its own. <a href="#">Netsafe's policy templates</a> are useful.</li><li>● Consider:<ul style="list-style-type: none"><li>● Digital citizenship agreement</li><li>● Computer use agreement</li><li>● Internet filtering</li><li>● If required, BYOD agreement</li><li>● Insurance policy (school/owner)</li></ul></li></ul>	

## Support

Item	Details	School Notes
Technical support <sup>5</sup>	<ul style="list-style-type: none"><li>● Procedures in place for supporting/configuring BYOD devices</li><li>● Self-help materials available to users</li><li>● Extra support available at start of BYOD programme</li></ul>	
Device storage	<ul style="list-style-type: none"><li>● Expectations of how devices will be stored when they are not needed are understood by all<sup>6</sup></li></ul>	
Device charging	<ul style="list-style-type: none"><li>● Expectations around charging devices are understood by all</li><li>● Consider what the requirements are for ensuring devices are charged, – will charging stations be required and if so where?</li></ul>	

## Infrastructure

Item	Details	School Notes
Internet connection	<ul style="list-style-type: none"> <li>● School is on an appropriately sized broadband connection</li> </ul>	
IP addresses	<ul style="list-style-type: none"> <li>● School network has enough IP addresses allocated. Allow for at least three ip addresses per person at school<sup>7</sup></li> <li>● In schools that are undergoing roll growth, allow for the projected increase in student numbers</li> </ul>	
Wireless access point configuration	<ul style="list-style-type: none"> <li>● 2GHz or 5GHz or both. Having both 2GHz and 5GHz networks will allow clients to connect at the best possible speed.</li> <li>● Network security (an open 'Guest' network used in conjunction with sensible filtering and firewalling can work well). Options include:               <ul style="list-style-type: none"> <li>○ Open (no key)</li> <li>○ PPSK (personal key for each student)</li> <li>○ WPA PSK (single key that is known by all)</li> <li>○ mac address (limit access to 'registered' devices)</li> <li>○ Radius (authentication via your network directory)</li> </ul> </li> <li>● Wireless channels have adequate separation</li> <li>● Guest VLAN (routing of clients)/WAP firewalling<sup>8</sup></li> <li>● Guest portal<sup>9</sup></li> </ul>	
Wireless access point coverage and density	<ul style="list-style-type: none"> <li>● Coverage of your wireless network adequate for the anticipated use. Wireless SNUP should ensure that coverage is comprehensive<sup>10</sup></li> <li>● Density of WAPs is adequate. It is a good idea to plan for moving or adding WAP's as usage patterns become known or change, for example when the timetable changes. One WAP per room recommended for full BYOD</li> </ul>	

Printing and other school-based services	<ul style="list-style-type: none"> <li>● Printing using the wireless network meets requirements<sup>11</sup></li> <li>● Students can access school-based services if required both within school and from the internet<sup>12</sup></li> </ul>	
Filtering	<ul style="list-style-type: none"> <li>● Internet filtering complies with school policies and procedures</li> <li>● If a SSL certificate is required for BYOD devices to receive filtered internet then it will need to be distributed to the BYOD devices</li> <li>● If the school has boarders, time-based filtering may need to be considered</li> <li>● Internet usage reporting meets needs (refer to N4L documentation for using N4L reports)</li> </ul>	
Devices	<ul style="list-style-type: none"> <li>● Minimum specifications for device have been carefully considered and agreed with all stakeholders<sup>14</sup> Could include: <ul style="list-style-type: none"> <li>○ specific operating system or support for a particular browser</li> <li>○ requirement for a keyboard</li> <li>○ minimum screen size</li> <li>○ minimum battery life</li> <li>○ suggested apps/software</li> <li>○ specify malware protection where appropriate</li> </ul> </li> <li>● Devices available to students who don't have them</li> </ul>	

1. For a term one start, communication with parents should start early enough for families to plan for the cost of the device.
2. If possible, this could be at the end of the term prior to planned BYOD implementation.
3. It is easier for all if expectations account for things going wrong in the first week/month.
4. Could be in staff/department meetings or other forum.
5. Each school will have their own ways for supporting the technical aspects of a BYOD programme. Key points to consider include being flexible and responsive to the needs of users and trying to get users to help themselves and each other. The first week or two of a BYOD implementation may uncover wifi dead-spots and areas where the density of WAP's is not high enough.
6. Some schools have secure storage available for BYOD devices. The type of storage varies hugely.
7. Changing network DHCP scope is best done infrequently, so it is better to overestimate the number of ip addresses required.
8. Restricting clients to the default internet gateway can ensure clients are unable to access other machines/services on your network. This increases security but adds complexity and means that printing must take place through a cloud-service.
9. A guest/captive portal may be a useful reminder of the conditions of using your school's network, alternatively it may be implicit in your internet agreement.
10. A walk-through of your school using a wireless network signal strength tool (lots of free ones are available) may give you an indication of potential coverage problems.

11. If BYOD devices are restricted to the internet using Internet Printing systems such as Google Cloud Print (free), Novell iprint (funded by MOE) and others, for example Papercut (\$), Everyoneprint (\$), and others – printer manufacturers sometimes have their own free, limited functionality systems.
12. If on-site servers are to be made available to students as part of BYOD, consider making these services available from the internet, so that students can access them from anywhere.
13. The specifications need to ensure that the device can be used successfully in school classes (and in future NZQA external assessments).