

DIGITAL EDUCATION REVOLUTION

IMPLEMENTATION PLAN

Your implementation plan, as per section 26 of the Digital Education Revolution (DER) National Partnership, should set out the jurisdictional approach to implementation of the Digital Education Revolution.

Please note the following is a guide only, you are not limited by the spaces provided nor by the categories.

Your implementation plan should also include, budget, timelines and milestones and will be balanced and sustainable at the school and sector level.

State: Northern Territory

Date: October 2009

What processes will be implemented to deploy computers to reach the computer to student ratio of 1:1 by 31 December 2011.

Northern Territory Schools have achieved a 1:2 computer to student ratio for year 9 – 12 students through rounds 1 and 2 of the National Secondary Schools Computer Fund.

The balance of the computers required to achieve a 1:1 ratio will be installed in two equal rounds in 2010 and 2011.

The funds allocated for ICT on costs will be released to schools from November 2009 pending approval of their plans to upgrade school facilities and services to support these additional computers.

The new computers will be purchased through existing supply contracts and fully managed under the existing ICT Service Management framework.

Consistent imaging of devices and a constant process of review ensures that the devices are not only deployed, but the software installed provides maximum advantage to students.

The centralised management of that software image provides real value to students and teachers by providing highly reliable and consistent services and allowing them to focus on education use rather than technical support.

How will your sector ensure that every secondary school in Australia has provisions for each student in Years 9-12 to have access to ICT to enable students to engage with educational tools of the 21st Century and provide equity of access?

The Northern Territory has invested significant funds to rollout enterprise class ICT systems and services into all schools. This includes a broadband data communications network, standard server and desktop environments and an integrated identity management service for all users. All hardware is provided with onsite warranty support and a central ICT service desk provides the single point of contact for all hardware, network and application support.

Investments in bandwidth have been focussed on upgrading services for remote schools with large numbers of disadvantaged indigenous students. Recent upgrades will see 20 Mbs services provided to schools where there is optical fibre and a minimum of 4 Mbs terrestrial or a STARS Satellite service for all other remote schools.

The core ICT Infrastructure services, enterprise software licences and identity management services are also provided to non-Government schools

How will your sector address the four strands of change identified in the Strategic Plan to guide the implementation of the DER?

Leadership – that ensures schools have a coordinated plan for the provision of infrastructure, learning resources and teacher capability to address the educational challenges of the 21st Century.

Leadership in the integration of the new ICT capabilities into teaching and learning is a central element in the accountability and performance improvement programs of all schools. Schools have developed individual ICT strategies using a standard template based on the AESOC (MCEETYA) ICT planning framework. Monitoring, analysis and refinement of school ICT strategies are reported through progress updates in their annual compliance reports.

Principals from the 20 largest year 9 – 12 schools have attended 1:1 training workshops and are working collaboratively to develop common approaches to the allocation and management of student computers.

Further principal workshops and individual school 1:1 planning workshops will be scheduled early in 2010 in advance of Round 3 allocations.

Infrastructure – access to digital teaching and learning resources and tools for processing information, building knowledge and for communication and collaboration.

As a small jurisdiction the NT has gained great advantage from the shared development of digital learning resources through the TLF and NT Teachers are enthusiastic users of Scootle.

Local resource developments are focussed on materials for teachers and students that target the specific needs of Indigenous students with low literacy and numeracy levels. These resources are held in Sharepoint repositories which are searchable by all teachers and students. The Sharepoint environment also provides the tools used to support online collaboration through wikis, blogs and discussion boards.

Interactive video services are available to all staff and students using a mix of the Adobe Connect and REACT video conferencing products and these technologies are being taken up for both group and one to one conferencing.

Standards such as SIF, SCORM and other metadata taxonomies are vigorously promoted by our content authors and learning material researchers to improve the discoverability and usability of digital teaching and learning resources.

All online services and resources are accessible from all computers connected to the NT Schools network and user domain.



Learning Resources – that stimulate, challenge and assist students in achieving desired learning outcomes. These include collaborative and interactive activities as well as instructional and reference materials.

The NT has introduced a series of learning management systems allowing teachers to create and manage online classes with Moodle and Sharepoint being the preferred solutions at present. A new virtual schools service *@School NT* will offer online and interactively delivered senior secondary and VET subjects from 2010. Students will be able to enrol in these subjects regardless of their location while specialist teachers and instructors will deliver synchronous and asynchronous lessons from online studios in their current schools.

An IT academy is also being established in *@School* which will allow students and staff to study online for accredited ICT qualifications and Microsoft and Cisco certified qualifications.

Online and interactive learning resources and systems are being developed that target the needs and interests of indigenous students in remote areas. These range from systems that support foundational literacy and numeracy to VET and Secondary programs that target these students' interests and skills in music and video production.

Teacher Capability – teachers have the skills and tools to design and deliver programs that meet students' needs and harness the benefits and resources of the digital revolution.

Teachers are now immersed in information systems and they are developing the skills to survive and thrive in this environment.

All NT Teachers have been issued with Laptop computers since 2004 with the goal of making them productive personal users of technology and to foster the skills and confidence to integrate ICT into their teaching. These teachers are now competent personal users of technology and development programs are now focussed on specific strategies and programs of classroom use of technologies such as interactive whiteboards and Web 2.0 tools.

The NT has led in the rollout of electronic student profiles which provide a single source of a students' enrolment, attendance and achievement records with online access by teachers and parents. This provides the basis to parents and teachers to collaborate tailoring learning to the individual needs of the student.

All secondary teachers are also required to create and maintain online class sites based on their student profiles and these will be used to advise students and parents on class schedules, assignments and assessments.

An integrated set of online curriculum requirements, programming guides, resources and lesson plans is provided to assist inexperienced teachers to deliver effective programs for indigenous students with low levels of literacy and numeracy and low rates of school attendance.

How will your sector contribute to promoting access to educational tools of the 21st Century to enable the effective delivery of an online nationally consistent curriculum as well as providing stimulating and challenging learning resources for students?

The NT is an active participant in the national forums that are developing the curriculum and technology standards to provide a consistent program and cater for the high number of transient students that move to and from the NT. The recent development of the Systems Interoperability Framework (SIF) offers great promise in setting national standards for the storage and transfer of student and school related information and the NT is a partner in the Tri State project which is seeking to track the movement of students in the border region of SA, WA and the NT.

The systems and resources developed in the NT for remote and indigenous students may be suitable for application in other jurisdictions with similar student cohorts.

What plans does your sector have for collaboration with other States and Territories and the Commonwealth Government to support teacher development in ICT, the development of ICT curriculum tools and developing support mechanisms for schools.

The NT is a member of the national committees that are managing programs for ICT teacher development, ICT curriculum tools and support services. Relevant staff attend the National Curriculum Board, AICTEC and The Teaching in the Digital Age Advisory Committee.

How will your sector contribute to engaging the teacher workforce through equipping teachers, through pre-service and in-service training, with the skills needed to effectively utilise ICT in the classroom?

The Department works in partnership with the two teaching training institutions to ensure all teachers have foundation ICT skills and a knowledge of the standard school ICT services through their pre service placements in their 12 training schools in the NT. Resources and incentives are also provided for teachers to pursue post graduate ICT related teaching qualifications.

ICT Learning consultants are employed in all regions to train teachers to incorporate ICT into their teaching and lead the adoption of new technologies such as Interactive Whiteboards and learning management systems.

How does your sector seek to facilitate the implementation of the other National Partnerships, particularly the Low Socio-Economic Status School Communities National Partnership, and how they will meet needs of schools in areas of growth and regional areas?

The NT has a large number of students and schools in the lowest social economic groups and there is a strong desire to use technology to engage these students and their families to improve school retention rates and provide pathways to further training or employment.

Remote schools which have the bulk of the NT's disadvantaged students have the same bandwidth, computers and service support as students in less disadvantaged schools. This infrastructure is critical to the Department's goal of providing the best services and teachers for the most disadvantaged students.

The introduction of @School subjects targeting remote and indigenous students such as VET Hospitality units are being funded through the Low SES National Partnership. These subjects programs will combine in school teaching and mentoring with the online and interactive delivery by subject matter experts.

Subjects being considered for the next set of virtual programs for disadvantaged students include natural resource management, geography, music and multimedia production.

How will you work with non-government schools, systems and BGAs to facilitate the participation of the non-government school sector in all elements of DER?

The NT provides non government schools with the same wide area network, Internet, email and file and print services as government schools and 1 managed computer is supplied for every 10 students. Non government schools purchase additional hardware and software from the central contracts and all service issues are reported to the NT Schools ICT service desk.

Non government school authorities and principals are participating in the planning workshops and the standard templates for school plans are being used by non government schools.

The NT Schools identity management service is used to create and maintain staff and student user accounts and personal files and email services automatically moved when a user transfers between any government or non-government school.

Non Government schools may also be invited to enrol their students in @School NT subjects but these will be done on a full cost recovery basis.

How will your sector cater for students with disability?

All schools make provision for disabled students who are able to attend regular schools and their ICT requirements are generally no different to normal students. The special education schools catering for students with higher needs have participated in rounds 1 and 2 of the NSSCF and have used the flexible provisions to buy ICT related aids suitable to the needs of their students.

The NT Distance Learning service offers online and interactive programs with personal tutors for students who can only access education services at home.

Name	2009 - AGE GRADE Unique Enrolments (9 -12)	Number of Replacements for Existing Computers (Feb 2007)	Number of Net New Computers	NSSCF Allcation \$1000 / computer	School on costs Costs \$ 3,415,000 distributed to new computers (\$786 / device)	Computer Rollout Schedule			
						Round 1 - 2008	Round 2 & 2.1 - 2009	Round 3 - 2010	Round 4 - 2011
Acacia Hill School	12	3	9	12,000	7,072		4	4	4
Alcoota School	9	2	7	9,000	5,500	6		2	2
Alekarenge CEC	17	5	12	17,000	9,429	10		4	4
Alice Springs High School	48	20	28	48,000	22,002		22	13	13
Anzac Hill High School	63	14	49	63,000	38,503	22		21	21
Alice Springs School Of the Air	2	0	2	2,000	1,572			1	1
Alpurrurulam School	11	2	9	11,000	7,072	3		4	4
Alyangula Area School	17	7	10	17,000	7,858		4	7	7
Ampilatwatja School	14	3	11	14,000	8,644	2		6	6
Angurugu CEC	16	2	14	16,000	11,001	30			
Alparra Middle School	35			35,000					
Barunga School	14	6	8	14,000	6,286		3	6	6
Batchelor Area School	19	7	12	19,000	9,429		6	7	7

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Bonya School	5	0	5	5,000	3,929			3	3
Borroloola CEC	19	4	15	19,000	11,787		3	8	8
Bulman School	2	2	0	2,000	-		2		
Canteen Creek School	17	5	12	17,000	9,429		4	7	7
Casuarina Senior College	1087	554	533	1,087,000	418,821		64	512	512
Centralian Sen College	513	206	307	513,000	241,234		68	223	223
Darwin High	1037	264	773	1,037,000	607,408		282	378	378
Darwin Middle School	218	0	218	218,000	171,300			109	109
Don Dale Centre	19	17	2	19,000	1,572			10	10
Dripstone High	187	68	119	187,000	93,508		51	68	68
Epenarra School	1	0	1	1,000	786			1	1
Elliott School	8	2	6	8,000	4,715		1	4	4
Finke School	1	2		1,000	- 786		2		

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Gapuwiyak CEC	47	13	34	47,000	26,717		10	19	19
Gunbalanya CEC (Oenpelli)	26	2	24	26,000	18,859	13		7	7
Harts Range School	3	2	1	3,000	786		3	0	0
Henbury School	26	8	18	26,000	14,144		10	8	8
Jabiru Area School	59	16	43	59,000	33,789		11	24	24
Kalkaringi CEC	21	8	13	21,000	10,215		4	9	9
Katherine High	399	136	263	399,000	206,660		160	120	120
Katherine School of the Air	31	0	31	31,000	24,359			16	16
Kintore Street School	4	1	3	4,000	2,357		1	2	2
Lajamanu CEC	11	4	7	11,000	5,500	7		2	2
Laramba (Napperby)	11	2	9	11,000	7,072	10		1	1
Lilla School	2			2,000				2	
Mamaruni School	2	0	2	2,000	1,572			1	1

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Maningrida CEC	94	24	70	94,000	55,005	50		22	22
Millingimbi CEC	65	11	54	65,000	42,432		20	23	23
Minyerri School	13	4	9	13,000	7,072		6	4	4
Mt Allan School	5	1	4	5,000	3,143	4		1	1
Murray Downs School	1	0	1	1,000	786			1	1
Nganmariyanga School	9	1	8	9,000	6,286	2		4	4
Ngukurr CEC	9	1	8	9,000	6,286	16			
Nhulunbuy High	182	91	91	182,000	71,506		35	74	74
Nightcliff Middle School	77	75	2	77,000	1,572		17	30	30
NT Open Education Centre	238	23	215	238,000	168,943		22	108	108
Ntaria School	26	7	19	26,000	14,930	1		13	13
Numbulwar CEC	29	7	22	29,000	17,287		12	9	9
Nyirрпи School	8	2	6	8,000	4,715		1	4	4

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Palmerston High	572	207	365	572,000	286,810		70	251	251
Peppimenarti School	2	0	2	2,000	1,572			1	1
Ramingining CEC	51	14	37	51,000	29,074		16	18	18
Sanderson High	154	54	100	154,000	78,578	129		13	13
Shepherdson College	74	8	66	74,000	51,861	41		17	17
Stirling School	4	0	4	4,000	3,143			2	2
Taminmin High	650	245	405	650,000	318,241		107	272	272
Tennant Creek High School	151	38	113	151,000	88,793	59		46	46
Ti Tree School	2	1	1	2,000	786	3			
Umbakumba School	25	10	15	25,000	11,787		7	9	9
Utopia School	11	2	9	11,000	7,072	9		1	1
Warruwi School	5	3	2	5,000	1,572		2	2	2
Willowra School	10	1	9	10,000	7,072	1		5	5

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Woolianna School	1	0	1	1,000	786			1	1
Wugularr School	19	9	10	19,000	7,858		2	9	9
YILPARA	19			19,000					
Yirrkala CEC	34	7	27	34,000	21,216		11	12	12
Yirrkala HLC	70	12	58	70,000	45,575		15	28	28
Yuendumu CEC	5	2	3	5,000	2,357	6			
Yulara School	4	4	0	4,000	-			2	2
Totals	6656	2253	4346	6,655,000	3,415,000	443	1061	2565	2565