

Institutional Network (“INET”)
Report

Prepared by the

CABLE TELEVISION DIVISION
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
STATE OF HAWAII

December 2007

Institutional Network Report for 2007

Section 111 of HB No. 500 – H.D. 1, S.D. 1, C.D. 1 Relating to the State Budget, Twenty-Fourth Legislature, 2007 states “Provided that of the special fund appropriation for cable television (CCA 102), the sum of \$2,400,000 or so much thereof as may be necessary for fiscal year 2007-2008 shall be expended for the expansion and update of the state institutional network (INET); provided further that the funds shall be expended as directed by the INET partners group, which includes the University of Hawaii, department of education, department of accounting and general services’ information and communication services division, and department of commerce and consumer affairs; and provided further that the department of commerce and consumer affairs shall submit a report to the legislature detailing the expenditure of these funds no later than twenty days prior to the convening of the 2008 and 2009 regular sessions.”

Attached is a report submitted by the University of Hawaii dated November 21, 2007 (“Report”) on behalf of the INET Partners regarding recent activities relating to the expansion and update of the Institutional Network (“INET”). Also attached is a copy of the Agreement for Institutional Network (INET) Interconnections and Funding signed by the INET Partners and dated May 16, 2007 (“Agreement”).

The Agreement states four (4) goals:

- 1) Re-groom the Oahu core INET fiber ring to significantly reduce the number of add-drop locations in order to improve overall reliability, optical performance, and stability.
- 2) Increase inter-island capacity for each of the INET partners from OC-3 to up to two GigE connections.
- 3) Support the deployment of new sites based on set-aside funding requirements for Hawaii Health Systems Corporation and DOE locations.
- 4) Substantially increase the overall number of connected locations among the three operational INET partners (i.e., DOE, UH, and ICSD).

The Agreement also identifies approximately 155 new INET sites categorized into 4 priority groups. This list of sites will be continuously updated as sites are connected and new sites are added.

The November 21, 2007 Report submitted by the University of Hawaii on behalf of the INET Partners provides an update on the most recent activities relating to the INET goals and planned sites.

The \$2,400,000.00 identified in HB 500 for INET expansion and update was paid to the University of Hawaii in November 2007 per item D(2)(a) on page 4 of the May 16, 2007 Agreement between the INET Partners.

UNIVERSITY OF HAWAII

Information Technology Services
Technology Infrastructure

November 21, 2007

Memo to: Clyde Sonobe, Administrator
CATV Division
DCCA

From: Garret Yoshimi, Director

Subject: INet Expansion Status

The effort expand the INet infrastructure is underway in accordance with the memorandum of understanding between the INet partners, the Department of Commerce and Consumer Affairs, Department of Education, Department of Accounting and General Services and the University of Hawaii. After completing a detailed review of the listing of additional facilities to be connected to the INet fiber optic infrastructure, including identification of candidate routes, Oceanic Time Warner Cable initiated the site-by-site deployment of the INet infrastructure expansion.

As of November 2007, a number of facilities have been connected to the INet infrastructure, and connectivity established between and among the INet partners. In addition, work is in progress to extend connections to a number of other facilities. The current status of the INet expansion effort is shown on the attached worksheet. The right-most status column reflects updates for those facilities where progress has been made over the last few months. The statuses shown are as follows:

- Facilities Walkthrough: Oceanic engineers are in the process of reviewing the condition and availability of facilities along the proposed cable route to determine whether pole loading, conduit or other issues may exist.
- Pole Loading Study: Based on the information gathered during the Facilities Walkthrough, complete the necessary analysis to support the Joint Pole application.
- JP Application <date>: Joint Pole application submitted on <date>.
- JP Application Approved: Joint Pole application has been approved.
- Cable Installed: Cable has been placed along the proposed cable route, including into the desired demarcation location, and is ready for termination, testing and connection to local network interfaces.
- Complete: INet extension complete and turned over to INet partner.

In addition to the expansion of the fiber optic infrastructure, we have also initiated design discussions relating to the expansion of the inter-island capacity provided to each of the INet partners, consistent with the objectives of the memorandum of understanding.

Please feel free to call me at 956-4566 if you have any questions on this matter.

SiteName	Dept	SiteAdr	SiteSt	SiteCity	SiteLand	SiteCity
Alamanu Middle	DOE	3271	Sait Lake	Oahu	BI	Honolulu
Central Middle	DOE	1302	Queen Emma	Oahu	St	Honolulu
Dole Middle School	DOE	1803	Kam IV	Oahu	Rd	Honolulu
Kaimuki Middle School	DOE	631	18th	Oahu	Av	Honolulu
Kaiser High School**	DOE	511	Lunalilo Home	Oahu	Rd	Honolulu
Katahau Middle School	DOE	821	Kailihi	Oahu	St	Honolulu
Kawanakoa Middle	DOE	49	Funchal	Oahu	St	Honolulu
Moanalua Middle	DOE	1289	Maniolo	Oahu	St	Honolulu
Noelani Elementary School	DOE	2655	Woodlawn	Oahu	Dr	Honolulu
Radford High School	DOE	4361	Sait Lake	Oahu	Bl	Honolulu
Roosevelt High School	DOE	1120	Nehoa	Oahu	St	Honolulu
Stevenson Intermediate	DOE	1202	Prospect	Oahu	St	Honolulu
Washington Middle	DOE	1633	King	Oahu	St	Honolulu
Kataheo High School	DOE	730	Iliaina	Oahu	St	Kailua
Milliani High School	DOE	95-1200	Meheula	Oahu	Pk	Milliani
Waipahu High School	DOE	94-1211	Farrington	Oahu	Hy	Waipahu
Campbell High School	DOE			Oahu	Hy	Ewa Beach
Aiea High School	DOE	98-1276	Ulune	Oahu	St	Aiea
Hawaii District Office Annex C	DOE	450	Waanuenue	Big	Av	Hilo
Hilo High School	DOE	556	Wainuenue	Big	Av	Hilo
Hilo Intermediate School	DOE	587	Waiuanene	Big	Av	Hilo
Honokaa High School	DOE	45-527	Pakalana	Big	St	Honokaa
Keaau High School	DOE	16-725	Keaau-Pahoa	Big	Rd	Keaau
Kealakehe Intermediate School	DOE	74-5062	Onipaa	Big	St	Kailua-Kona
Konawaena High School	DOE	81-1043	Konawaena	Big	Rd	Kealakekua
Pahoa High	DOE	15-3038	Puna	Big	Rd	Pahoa
Baldwin High School	DOE	1650	Kaahumanu	Maui	Av	Wailuku
Kahului Elementary School	DOE	410	Hina	Maui	Hy	Kahului
Kalama Intermediate School	DOE	120	Makani	Maui	Rd	Makawao
Kekaulike High School	DOE	121	Kula	Maui	Hy	Pukalani
Kihei Elementary School	DOE	250	Lipoo	Maui	St	Kihei
Lokelani Intermediate Schol	DOE	1401	Liloo	Maui	Dr	Kihei
Waimea Canyon Elementary & Intermediate	DOE	9555	Hunakai	Kauai	St	Waimea
DR Site - DAGS	DAGS	No		Big	St	Hilo
Hemmeter Bldg - DAGS	DAGS	250	Hotel	Oahu	St	Honolulu
Hilo Medical Center	HHSC	1190	Waiuanuenue	Big	Av	Hilo
Hale Ho'ola Hamakua - HHSC	HHSC	45-547	Plumeria	Big	St	Honoka'a
Kohala Hospital	HHSC	54-383	Hospital	Big	Rd	Kapaau
HHSC - Kona Community Hospital	HHSC	79-1019	Haukapila	Big	St	Kealakekua
Ka'u Hospital	HHSC	1	Kamani	Big	St	Pahala
HHSC - Samuel Mahelona Memorial Hospital	HHSC	4800	Kawaihau	Kauai	Rd	Kapaa
Kauai Veteran Memorial Hospital	HHSC	4646	Waimea	Kauai	Rd	Waimea
Lanai Community Hospital	HHSC	628	Seventh	Lanai	St	Lanai
Kula Hospital	HHSC	201	Kula	Maui	Hy	Kula
Maui Memorial Medical Center	HHSC	221	Mahalani	Maui	St	Wailuku
Leahi Hospital	HHSC	3675	Kilauea	Oahu	Av	Honolulu

*Duct Pathway Unavailable - Use State Owned Fiber

Complete

Complete

Complete

Complete

Complete

Complete

Location	Address	City	County	Project	Status	Notes
Maluhia	1027	Hala	Dr	Oahu	Honolulu	Complete
North Hawaii Research and Education Center	45-593	Plumeria	St	Big	Honokaa	Complete
Institute for Astronomy - Kula	Aapueo		Pk	Maui	Kula	
Kona SOB - DAGS	79-1020	Haukapila	St	Big	Kealahou	
Aloha Stadium - DAGS	99-500	Salt Lake	Bl	Oahu	Honolulu	
Waipahu Civic Center - DAGS	94-275	Mokuola	St	Oahu	Waipahu	
Bio Chem Lab	2725	Waimano Home	Rd	Oahu	Pearl City	Complete
Waiakea Elementary School	180	W Puainako	St	Big	Hilo	
Waiakea Intermediate School	200	W Puainako	St	Big	Hilo	
Kealahou Elementary School	74-5118	Kealahou	St	Big	Kailua-Kona	
Keaau Elementary	16-680	Keaau-Pahoa	Rd	Big	Keaau	
Keaau Middle School	15-565	Keaau-Pahoa	Rd	Big	Keaau	
Laupahoehoe High School		Hawaii Belt	Rd	Big	Laupahoehoe	
Kau High & Pahala Elementary	96-3150	Pikake	St	Big	Pahala	
Aiea Intermediate	99-600	Kulawea	St	Oahu	Aiea	JP Application - 8/21
Ewa Elementary	91-1280	Renton	Rd	Oahu	Ewa Beach	JP Application Approved
Holomua Elementary	91-1561	Keaunui	Dr	Oahu	Ewa Beach	JP Application Approved
Ilima Intermediate	91-884	Fort Weaver	Rd	Oahu	Ewa Beach	JP Application - 8/21
Ocean Pointe Elementary	91-970	Kaileoia	Dr	Oahu	Ewa Beach	
Niu Valley Middle	310	Halemaunau	St	Oahu	Honolulu	JP Application - 8/21
Kailua Intermediate	145	Kaimalu	Dr	Oahu	Kailua	Pole Loading Study
Milliani Ike Elementary	95-1330	Lehiwa	Dr	Oahu	Milliani	
Highland Intermediate	1460	Hoolaula	St	Oahu	Pearl City	
Wahiawa Middle	275	Rose	St	Oahu	Wahiawa	
Nanaikapono Elementary	89-153	Mano	Av	Oahu	Waianae	*Damaged Riser Conduit - Requires Repair
Waianae Intermediate	85-626	Farrington	Hy	Oahu	Waianae	Facilities Walkthrough
Waimanalo Elementary & Intermediate	41-1330	Kalaniana'ole	Hy	Oahu	Waimanalo	Pole Loading Study
August Ahrens Elementary	94-1170	Waipahu	St	Oahu	Waipahu	JP Application - 10/2
Waipahu Elementary	94-465	Farrington	St	Oahu	Waipahu	Facilities Walkthrough
Waipahu Intermediate	94-455	Farrington	Hy	Oahu	Waipahu	Cable At Campus Riser Pole
Eleele Elementary School	4750	Uliuli	Rd	Kauai	Eleele	
Hanalei Elementary School	5-5414	Kuhio	Hy	Kauai	Hanalei	
Kalaheo Elementary School	4400	Maka	Rd	Kauai	Kalaheo	
Kapaa Elementary School	4886	Kawihau	Rd	Kauai	Kapaa	
Kekaha Elementary School	8140	Kekaha	Rd	Kauai	Kekaha	
Kilauea Elementary School	2440	Kolo	Rd	Kauai	Kilauea	
Koloa Elementary School	3223	Poipu	Rd	Kauai	Koloa	
Kaunualii Elementary School	4380	Hanamaulu	Rd	Kauai	Lihue	
Haiku Elementary	105	Pauwela	Rd	Maui	Haiku	
Lihikai Elementary School	335	South	Av	Maui	Kahului	
Maui Lani Elementary School		Onehee	St	Maui	Kahului	
Maui Waena Intermediate School	795	Kealii	St	Maui	Kahului	
Kamalii Elementary	180	Kula	Hy	Maui	Kihui	
Kula Elementary	5000	Front	St	Maui	Kula	
Kamehameha III Elementary	611	Lahaina	St	Maui	Lahaina	
Lahaina Intermediate School	871	Lahaina	Rd	Maui	Lahaina	

Nahienaena Elementary	DOE	816	Niheu	St	Maui	Lahaina	
Makawao Elementary	DOE	3542	Baldwin	Av	Maui	Makawao	
Paia Elementary	DOE	955	Baldwin	Av	Maui	Paia	
Pukalani Elementary	DOE	2945	Iolani	St	Maui	Pukalani	
Iao Intermediate School	DOE	260	Market	St	Maui	Wailuku	
Waihee Elementary School	DOE	2125	Kahekili	Hy	Maui	Wailuku	
Wailuku Elementary School	DOE	355	South	St	Maui	Wailuku	
Hawaii Community College	UH	New			Big	Hilo	
University of Hawaii - West Hawaii	UH	New			Big	Kona	
Kalaheba Hanger 111 (Honolulu CC)	UH				Oahu	Kapolei	
Hawaiian Studies	UH				Oahu	Honolulu	
University of Hawaii - West Oahu	UH				Oahu	Kapolei	
Keawe Health Ctr - DOH	DOH	46	Keawa	St	Big	Hilo	
Waiakea Health Ctr - DOH	DOH	191	Kuawa	St	Big	Hilo	
Keakealani - DOH	DOH	79-1020	Haukapila	St	Big	Kealahou	
Kona Health Ctr - DOH	DOH	79-1015	Haukapila	St	Big	Kealahou	
Wailuku Health Ctr - DOH	DOH	121	Mahalani	St	Maui	Wailuku	
Vector Control- DOH	DOH	99-945	Halawa Valley	St	Oahu	Aiea	
Ala Moana Health - DOH	DOH	591	Ala Moana	Bl	Oahu	Honolulu	
Diamond Head Health Ctr - DOH	DOH	3627	Kilauea	Ave	Oahu	Honolulu	
Lanakila Health Ctr - DOH	DOH	1700	Lanakila	Ave	Oahu	Honolulu	
Trotter Bldg - DOH	DOH	3650	Maunalei	Ave	Oahu	Honolulu	
Wilcox Annex - DOH	DOH	741	Sunset	Ave	Oahu	Honolulu	
State Hospital - DOH	DOH	45-710	Kealahou	Rd	Oahu	Kaneohe	
Windward Health Ctr - DOH	DOH	45-691	Kealahou	Rd	Oahu	Kaneohe	
Leeward Health Ctr - DOH	DOH	860	Fourth	St	Oahu	Pearl City	
Waimano Hosp - DOH	DOH	2201	Waimano Home	Rd	Oahu	Pearl City	Complete
Hilo International Airport	DOT	No			Big	Hilo	Complete - Spur from DOH
Kona International Airport at Keahole	DOT	No			Big	Kailua-Kona	
Highways DO(Lihue)	DOT	1720	Haleukana	St	Kauai	Lihue	
Lihue Airport	DOT	No	Street		Kauai	Lihue	
Kahului Airport	DOT	No	Street		Maui	Kahului	
H3 Tunnel	DOT				Oahu		Complete - Spur from DAGS Central Services
Harbors Police - Nimitz Hwy	DOT	705	Nimitz	Hy	Oahu	Honolulu	
Highways DO	DOT	727	Kakoi	St	Oahu	Honolulu	Complete - Spur from DAGS Central Services
Honolulu International Airport	DOT	300	Rodgers	Bl	Oahu	Honolulu	
Pier 1 EDSO	DOT				Oahu	Honolulu	
Pier 1 EMCC	DOT				Oahu	Honolulu	
Hilo APD	JUD		Kilauea	St	Big	Hilo	
Hilo Family Court	JUD		Kekuakua	St	Big	Hilo	
Waimea Dist Court	JUD	64-5000-64-	Kamamalu	St	Big	Kamuela	
Kona Dist Court	JUD	79-1020	Haukapila	St	Big	Kealahou	
Puna Court House	JUD	16-200	Pili	St	Big	Keaua	
Waimea FC/APD	JUD				Big	Waimea	
Koiaa Dist Court	JUD	3461	Weiwei	Rd	Kauai	Koiaa	

Kauai APD					Kauai	Lihue
Kauai CC Annex					Kauai	Lihue
Kauai Dist Court		3970	Ka'ana	St	Kauai	Lihue
Kauai Licke Bldg		312	Eight	St	Lanai	Lanai
Lanai Court		1870	Honoapiilani	Hy	Maui	Lahaina
Maui APD		55	Makaena	St	Molokai	Kaunakakai
Lahaina Dist Court		3019	Pali	Hwy	Oahu	Honolulu
Molokai Family Court		902	Adler	St	Oahu	Honolulu
Molokai Dist Court		345	Queen	St	Oahu	Honolulu
Kapolei Court Bldg		1624	Hart	St	Oahu	Honolulu
Child Advocacy Ctr		45-939	Pookela	St	Oahu	Kaneohe
Detention Home		870	Fourth	St	Oahu	Pearl
OPG		1034	Kilani	Av	Oahu	Wahiawa
Records Mgmt		87-1784	Farrington	Hy	Oahu	Waianae
JUD - Kaneohe Dist Court						
Ewa Dist Court						
Wahiawa Dist Court						
Waianae Dist Court						

**AGREEMENT FOR
INSTITUTIONAL NETWORK (INET)
INTERCONNECTIONS AND FUNDING**

This "Agreement for Institutional Network (INET) Interconnections and Funding" ("**Agreement**") is entered into on May 14, 2007 between the: (1) Cable Television Division of the State of Hawaii ("**State**") Department of Commerce and Consumer Affairs ("**DCCA**"), (2) University of Hawaii ("**UH**"), (3) Department of Education ("**DOE**"), and (4) the Information and Communication Services Division ("**ICSD**") of Department of Accounting and General Services ("**DAGS**"). Collectively, these State agencies shall be referred to as the "**INET partners**".

RECITALS

WHEREAS, the Institutional Network ("**INET**") is a fiber-based network that is utilized by government and educational institutions for telecommunications purposes, and is the infrastructure that allows the INET partners to implement various telecommunication-based services (including but not limited to teleconferencing, email, internet access, two-way video, Homeland security, etc.);

WHEREAS, the INET is provided and maintained by the cable operators (e.g., Time Warner Entertainment, L.P. ("**TWE**")) pursuant to various cable television franchise orders or Decisions and Orders ("**D&O**") issued by DCCA;

WHEREAS, the INET partners have various sites around the State that are currently connected to the INET;

WHEREAS, the INET partners can request that the cable operators interconnect new sites to the INET;

WHEREAS, the cable operators and other entities charge fees to make a new INET interconnection; and

WHEREAS, the INET partners desire to enter into an agreement to describe the procedure to request and the process to pay for the new INET interconnections.

AGREEMENT

In consideration of the mutual promises and covenants below, the INET partners hereby agree as follows:

A. Introduction

1. The INET partners collaboratively develop strategies to continuously develop and expand the INET.

2. Each INET partner shall identify and prioritize their potential additions to the current INET sites based on their determined needs.
3. The INET partners then mutually decide on the eventual implementation of new INET sites based on need and available funding.
4. DCCA coordinates communication between the INET partners and the cable operators, and provides partial funding for the selected projects.

B. INET Goals

1. Goal # 1: Re-groom the Oahu core INET fiber ring to significantly reduce the number add-drop locations in order to improve overall reliability, optical performance, and stability.
 - a. This shall be accomplished by implementing a new, parallel fiber backbone to support Oahu DOE sites.
 - b. The parallel fiber backbone shall be interconnected with the Oahu core INET fiber ring at one or two interconnection points.
2. Goal # 2: Increase inter-island capacity for each of the INET partners from OC-3 to up to two GigE connections.
3. Goal # 3: Support the deployment of new sites based on set-aside funding requirements for Hawaii Health Systems Corporation and DOE locations.
4. Goal # 4: Substantially increase the overall number of connected locations among the three operational INET partners (i.e., DOE, UH, and ICSD).
5. A comprehensive list of INET expansion sites described in Goals # 3 and 4 is provided in Exhibit "A" to this Agreement.
 - a. Exhibit "A" consists of: (1) "DOE I-NET Expansion Plan 2006-2011", (2) "DOE I-NET Phased Implementation Strategy", and (3) "INET Implementation Priority List".
 - b. Exhibit "A" is incorporated into and made a part of this Agreement.
 - c. The INET partners intend to continuously update and amend Exhibit "A". Notwithstanding any other provision to the contrary, the INET partners may amend Exhibit "A" at any time without executing a Supplemental Agreement.

C. Specific INET Partners' Responsibilities

1. DCCA

- a. DCCA's role is to assist in the funding of new INET sites when such funding is available, and to facilitate the implementation and expansion of INET activities through its regulatory responsibilities via the cable television franchises issued to the cable operators.
- b. Although DCCA is currently not involved in the selection of INET sites by the other INET partners, DCCA does contribute input in prioritization and implementation matters.

2. UH

- a. UH shall coordinate the overall expenditure of funds to carry out the requirements of this Agreement. Thus, DCCA, DOE, and ICSD shall provide funds directly to UH to carry out the requirements of this Agreement.
- b. UH shall work with the INET partners to fairly manage any financial implications that may result from changes in specific costs while honoring the agreed-upon INET expansion priorities.
- c. UH shall oversee the implementation work of the cable operators and other entities to expand the INET sites.

D. Funding of the INET interconnections

The following are all subject to prior legislative appropriation and approval, and may be modified at any time by the appropriate INET partner:

1. Fiscal Year 2007

- a. DCCA shall provide approximately ONE MILLION AND NO/100 DOLLARS (\$1,000,000.00) to UH to accomplish the goals specified in this Agreement; and
- b. UH, DOE, DAGS, and DCCA shall provide approximately TWO HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS (\$250,000) each (for an approximate total of \$1,000,000.00) to UH to accomplish the goals specified in this Agreement.

2. Fiscal Year 2008

- a. DCCA intends to provide approximately TWO MILLION FOUR HUNDRED THOUSAND AND NO/100 DOLLARS (\$2,400,000.00) to UH to accomplish the goals specified in this Agreement; and
- b. UH, DOE, DAGS, and DCCA also intend to provide additional funding (as available) to UH to accomplish the goals specified in this Agreement.

3. Fiscal Years 2009 and Beyond

The INET partners intend to provide additional funding (as available) to UH to accomplish the goals specified in this Agreement, including the provision of INET connectivity to Charter Schools as may be agreed to by the INET partners.

4. The timing and method of payment of the above amounts of funding shall be mutually agreed to between the INET partner providing the funding and UH.
5. Additional funding may be provided by each individual INET partner to complete additional sites that are included in Exhibit "A", as amended pursuant to this Agreement.

E. Term of this Agreement and Renewal

1. This Agreement shall be effective from May 16, 2007 to May 15, 2012 (i.e., for five (5) years).
2. Thereafter, this Agreement shall be automatically renewed on an annual basis.

F. Modification and Termination of this Agreement

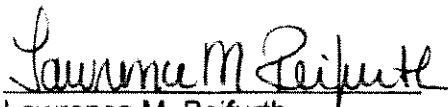
1. This Agreement may be modified at any time by written mutual agreement between all of the INET partners, and any such modification shall be done via Supplemental Agreement.
2. This Agreement may be terminated at any time by written mutual agreement between all of the INET partners.
3. Any of the INET partners may withdraw from this Agreement by providing at least one hundred eighty (180) days written notice to the other INET partners.

G. Entire Agreement

This Agreement constitutes the entire agreement between the INET partners on the matters described herein and supersedes any and all prior representations, understandings, and agreements (oral or written) between the INET partners.

**DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS**

UNIVERSITY OF HAWAII



Lawrence M. Reifurth
Director of Commerce
and Consumer Affairs

Date: May 16, 2007

David McClain

President

Date: _____

**DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES**

DEPARTMENT OF EDUCATION

Russ Saito
Comptroller
Date: _____

Patricia Hamamoto
Superintendent
Date: _____

APPROVED AS TO FORM:

Deputy Attorney General

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**DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS**


UNIVERSITY OF HAWAII

Lawrence M. Reifurth
Director of Commerce
and Consumer Affairs
Date: _____

David McClain
President
Date: _____

**DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES**

DEPARTMENT OF EDUCATION



Russ Saito
Comptroller
Date: 5/10/07

Patricia Hamamoto
Superintendent
Date: _____

APPROVED AS TO FORM:

Deputy Attorney General


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**DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS**

Lawrence M. Reifurth
Director of Commerce
and Consumer Affairs
Date: _____

UNIVERSITY OF HAWAII



David McClain
President
Date: 5/7/07

**DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES**

Russ Saito
Comptroller
Date: _____

DEPARTMENT OF EDUCATION

Patricia Hamamoto
Superintendent
Date: _____

APPROVED AS TO FORM:

Deputy Attorney General

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**DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS**

UNIVERSITY OF HAWAII

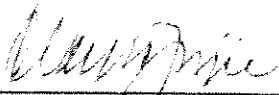
Lawrence M. Reifurth
Director of Commerce
and Consumer Affairs
Date: _____

David McClain
President
Date: _____

**DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES**

DEPARTMENT OF EDUCATION

Russ Saito
Comptroller
Date: _____



Patricia Hamamoto
Superintendent
Date: MAY 01 2007

APPROVED AS TO FORM:

Deputy Attorney General

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**DEPARTMENT OF COMMERCE
AND CONSUMER AFFAIRS**

UNIVERSITY OF HAWAII

Lawrence M. Reifurth
Director of Commerce
and Consumer Affairs
Date: _____

David McClain
President
Date: _____

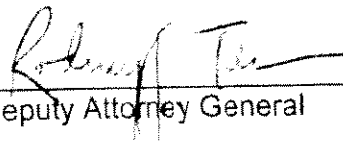
**DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES**

DEPARTMENT OF EDUCATION

Russ Saito
Comptroller
Date: _____

Patricia Hamamoto
Superintendent
Date: _____

APPROVED AS TO FORM:



Deputy Attorney General

DOE I-NET EXPANSION PLAN
2006-2011

	A	B	C	D
1	2006-2007 OAHU	2007-2008 OAHU	2008-2009 OAHU	2009-2011 OAHU
2				
3	Aiea High School	Holomua Elementary	Waianae Intermediate	Jarret Middle
4	Kaiser High School*	Kaimuki Middle School	Waipahu Intermediate	Kaahumanu Elementary
5	Kalaheo High School	Noelani Elementary School	Aiea Intermediate	Kahala Elementary
6	Mililani High School	Aliamanu Middle	Central Middle	Kapalama Elementary
7	Radford High School	August Ahrens Elementary	Ewa Elementary	Lunalilo Elementary
8	Roosevelt High School	Dole Middle School	Kawanakoa Middle	Maemae Elementary
9	Waipahu High School	Highland Intermediate	Nanaikapono Elementary	Manoa Elementary
10	Cambell High	Ilima Intermediate	Niu Valley Middle	Wilson Elementary
11	*Oceanic needs to find poll/conduit space	Kailua Intermediate	Wahiawa Middle	Aliamanu Elementary
12		Kalaikua Middle School	Waimanalo Elementary & Intermediate	Helemano Elementary
13		Mililani ike Elementary	Waipahu Elementary	Kipapa Elementary
14		Moanalua Middle	Washington Middle	Makaiapa Elementary
15		Keoneolu Elementary		Moanalua Elementary
16				Pearl Harbor Elementary
17	HAWAII	HAWAII	HAWAII	Pearl Ridge Elementary
18	Hawaii District Office Annex C	Keaau Middle School	Kau High & Pahala Elementary	Solomon Elementary
19	Hilo High School	Kealahou Elementary School	Keaau Elementary	Waialua Elementary
20	Hilo Intermediate School	Konawaena High School	Waiakea Elementary School	Mililani Waena Elementary
21	Honokaa High School	Pahoah High	Waiakea Intermediate School	Mililani Mauka Elementary
22	Keaau High School			Mililani Uka Elementary
23	Kealahou Intermediate School			Salt Lake Elementary
24				Wheeler Middle
25	MAUI	MAUI	MAUI	Wheeler Elementary
26	Baldwin High School	Maui Lani Elementary School	Haiku Elementary	Iroquois Elementary
27	Kahului Elementary School	Iao Intermediate School	Kamalii Elementary	Malii Elementary
28	Kalama Intermediate School	Lihikai Elementary School	Kamehameha III Elementary	Makakilo Elementary
29	Kekaulike High School	Maui Waena Intermediate School	Kula Elementary	Pohakea Elementary
30	Kihei Elementary School	Wailuku Elementary School	Makawao Elementary	Waianae Elementary
31	Lokelani Intermediate School		Nahienaena Elementary	Leihoku Elementary
32			Paia Elementary	Kamale Elementary
33			Pukalani Elementary	Honowai Elementary
34			Waihee Elementary School	Kaimiloa Elementary
35				Kanoelani Elementary
36	KAUAI	KAUAI	KAUAI	Mauka Lani Elementary

DOE I-NET EXPANSION PLAN
2006-2011

	A 2006-2007	B 2007-2008	C 2008-2009	D 2009-2011
1				
37	Waiheka Canyon Elementary & Intermediate	Kapaa Elementary School	Hanalei Elementary School	Kaleiopuu Elementary
38		Eleele Elementary School	Kekaha Elementary School	Waiau Elementary
39		Kaunualii Elementary School	Kilauea Elementary School	Waiale Elementary
40	* Oceanic needs to find conduit space.	Kalaheo Elementary School	Koia Elementary School	Aikahi Elementary
41				Heela Elementary
42				Kainalu Elementary
43				Kaneohe Elementary
44				Kapunahala Elementary
45				Keolu Elementary
46				Mokapu Elementary
47				Kahuku Elementary
48				
49				
50				HAWAII
51				Hilo Union Elementary
52				Holuiloa Elementary
53				Honokaa Elementary
54				Kalanionele El & Interm
55				Kapiolani Elementary
56				Kahakai Elementary
57				Kohala High
58				Kohala Middle
59				Konala Elementary
60				Konawaena Middle
61				Konawaena Elementary
62				Laupahoehoe High & El
63				Mt View Elementary
64				Waikawaena
65				Keonepoko Elementary
66				Waikoloa Elementary

DOE I-NET PHASED IMPLEMENTATION STRATEGY

PHASE	Schools included	Reasoning
1	High schools	The DOE I-Net topology is 'Hub and Spoke' network where the high school sites serves as hubs in the I-Net backbone network. High schools generally are larger and generate more network traffic than the lower grade schools. High school serves as the center of the school complex for the lower grade schools.
	Schools requiring high network capacity applications	Schools engaged in operating applications that require high capacity network, such as multimedia applications.
	Schools located in the backbone I-Net pathway	School located in the path of the I-Net backbone link shorten the fiber links in between the two connection points and will lessen the requirements for light regeneration.
2	Schools where no high capacity network service is NOT available from the service providers, but I-Net connection is reasonably feasible	High capacity network is generally not available for many of the neighbor island schools from the commercial network service providers. I-Net connection capacity is reasonably available for most schools in Kauai and Maui.
	Schools requiring high network capacity applications	Schools may not be large, but engage in operating network applications that require high capacity at the time of this implementation phase.
	Middle and Intermediate schools	Middle/intermediate schools are generally larger and generate larger volume of network traffic. Some use multimedia applications requiring high network capacity
	Elementary schools with very large enrollment (around 1000)	The very large elementary schools generate high volume of network traffic.
3	Elementary schools with large enrollment (around 500 -900)	Large elementary schools generate high volume of network traffic.
	Schools requiring high network capacity applications	Schools with lower enrollment, but engage in operating network applications that require high capacity at the time of this implementation phase.
4	Rest of the schools	All schools where I-Net connectivity is feasible at this phase will be implemented.

INET Implementation Priority List

SiteName	Dept	SiteAdr	SiteD	SiteSt	SiteIsland	SiteCity
Priority Group 1						
Alamano Middle	DOE	3271		Salt Lake	Oahu	Honolulu
Central Middle	DOE	1302		Queen Emma	Oahu	Honolulu
Dole Middle School	DOE	1603		Kam IV	Oahu	Honolulu
Kaimuki Middle School	DOE	631		16th	Oahu	Honolulu
Kaiser High School**	DOE	511		Lunalilo Home	Oahu	Honolulu
Kalaka'ua Middle School	DOE	821		Kalihi	Oahu	Honolulu
Kawanakoa Middle	DOE	49		Funchal	Oahu	Honolulu
Moanalua Middle	DOE	1289		Mahiole	Oahu	Honolulu
Noelani Elementary School	DOE	2655		Woodlawn	Oahu	Honolulu
Radford High School	DOE	4361		Salt Lake	Oahu	Honolulu
Roosevelt High School	DOE	1120		Nehoa	Oahu	Honolulu
Stevensen Intermediate	DOE	1202		Prospect	Oahu	Honolulu
Washington Middle	DOE	1633	S	King	Oahu	Honolulu
Kalaheo High School	DOE	730		Iliaina	Oahu	Kailua
Milliani High School	DOE	95-1200		Meheula	Oahu	Milliani
Waipahu High School	DOE	94-1211		Farrington	Oahu	Waipahu
Campbell High School	DOE				Oahu	Ewa Beach
Aiea High School	DOE	98-1276		Ulune	Oahu	Aiea
Hawaii District Office Annex C	DOE	450		Waanuenue	Big Island	Hilo
Hilo High School	DOE	556		Wainuenue	Big Island	Hilo
Hilo Intermediate School	DOE	587		Waiuanuene	Big Island	Hilo
Honokaa High School	DOE	45-527		Pakalana	Big Island	Honokaa
Keauu High School	DOE	16-725		Keauu-Pahoa	Big Island	Keauu
Kealahou Intermediate School	DOE	74-5062		Onipaa	Big Island	Kailua-Kona
Konawaena High School	DOE	81-1043		Konawaena	Big Island	Kealahou
Pahoa High	DOE	15-3038		Puna	Big Island	Pahoa
Baldwin High School	DOE	1650		Kaahumanu	Maui	Wailuku
Kahului Elementary School	DOE	410	S	Hina	Maui	Kahului
Kalama Intermediate School	DOE	120		Makani	Maui	Makawao
Kekaulike High School	DOE	121		Kula	Maui	Pukalani
Kihui Elementary School	DOE	250	E	Lipoo	Maui	Kihui
Lokelani Intermediate School	DOE	1401		Liloo	Maui	Kihui
Waimea Canyon Elementary & Intermediate	DOE	9555		Hunakai	Kauai	Waimea

INET Implementation Priority List

SiteName	Dept	SiteAdr	SiteSt	SiteCity	SiteCity
DR Site - DAGS	DAGS	No			Big Island Hilo
Hemmeter Bldg - DAGS	DAGS	250	Hotel	Oahu	Honolulu
Hilo Medical Center	HHSC	1190	Waianuenu	Av	Big Island Hilo
Hale Ho'ola Hamakua - HHSC	HHSC	45-547	Plumeria	St	Big Island Honoka'a
Kohala Hospital	HHSC	54-383	Hospital	Rd	Big Island Kapa'au
HHSC - Kona Community Hospital	HHSC	79-1019	Haukapila	St	Big Island Kealahou
Ka'u Hospital	HHSC	1	Kamani	St	Big Island Pahala
HHSC - Samuel Matherona Memorial Hospital	HHSC	4800	Kawaihau	Rd	Kauai Kapaa
Kauai Veteran Memorial Hospital	HHSC	4646	Waimea	Rd	Waimea
Lanai Community Hospital	HHSC	628	Seventh	St	Lanai
Kula Hospital	HHSC	201	Kula	Hy	Kula
Maui Memorial Medical Center	HHSC	221	Mahalani	St	Maui Wailuku
Leahi Hospital	HHSC	3675	Kilauea	Ave	Oahu Honolulu
Maluhia	HHSC	1027	Hala	Dr	Oahu Honolulu
North Hawaii Research and Education Center	UH	45-593	Plumeria	St	Big Island Honokaa
Institute for Astronomy - Kula	UH	Aapueo		Pk	Kula
Priority Group 2					
Kona SOB - DAGS	DAGS	79-1020	Haukapila	St	Big Island Kealahou
Aloha Stadium - DAGS	DAGS	99-500	Salt Lake	Bl	Oahu Honolulu
Waipahu Civic Center - DAGS	DAGS	94-275	Mokuola	St	Oahu Waipahu
Bio Chem Lab	DOA	2725	Waimano Home	Rd	Oahu Pearl City
Waiakea Elementary School	DOE	180	Puainako	St	Big Island Hilo
Waiakea Intermediate School	DOE	200	Puainako	St	Big Island Hilo
Kealahou Elementary School	DOE	74-5118	Kealahou	St	Big Island Kailua-Kona
Keaau Elementary	DOE	16-680	Keaau-Pahoa	Rd	Big Island Keaau
Keaau Middle School	DOE	15-565	Keaau-Pahoa	Rd	Big Island Keaau
Laupahoehoe High School	DOE		Hawaii Belt	Rd	Big Island Laupahoehoe
Kau High & Pahala Elementary	DOE	96-3150	Pikake	St	Big Island Pahala
Aiea Intermediate	DOE	99-600	Kulawea	St	Oahu Area
Ewa Elementary	DOE	91-1280	Renton	Rd	Oahu Ewa Beach
Holomua Elementary	DOE	91-1561	Keaunui	Dr	Oahu Ewa Beach
Ilima Intermediate	DOE	91-884	Fort Weaver	Rd	Oahu Ewa Beach
Ocean Pointe Elementary	DOE	91-970	Kaileolea	Dr	Oahu Ewa Beach

INET Implementation Priority List

SiteName	Dept	SiteAddr	SiteSt	SiteLand	SiteCity
Niu Valley Middle	DOE	310	Halamaumau	Oahu	Honolulu
Kailua Intermediate	DOE	145	Kaimali	Oahu	Kailua
Mililani Ike Elementary	DOE	95-1330	Lehiwa	Oahu	Mililani
Highland Intermediate	DOE	1460	Hoolauliea	Oahu	Pearl City
Wahiawa Middle	DOE	275	Rose	Oahu	Wahiawa
Nanaikapono Elementary	DOE	89-153	Mano	Oahu	Waianae
Waianae Intermediate	DOE	85-626	Farrington	Oahu	Waianae
Waimanalo Elementary & Intermediate	DOE	41-1330	Kalaniana'ole	Oahu	Waimanalo
August Ahrens Elementary	DOE	94-1170	Waipahu	Oahu	Waipahu
Waipahu Elementary	DOE	94-465	Waipahu	Oahu	Waipahu
Waipahu Intermediate	DOE	94-455	Farrington	Oahu	Waipahu
Eleele Elementary School	DOE	4750	Uluuli	Kauai	Eleele
Hanaalei Elementary School	DOE	5-5414	Kuhio	Kauai	Hanaalei
Kalaheo Elementary School	DOE	4400	Maka	Kauai	Kalaheo
Kapaa Elementary School	DOE	4886	Kawihau	Kauai	Kapaa
Kekaha Elementary School	DOE	8140	Kekaha	Kauai	Kekaha
Kilauea Elementary School	DOE	2440	Kolo	Kauai	Kilauea
Koioa Elementary School	DOE	3223	Poipu	Kauai	Koioa
Kaunualii Elementary School	DOE	4380	Hanamaulu	Maui	Lihue
Haiku Elementary	DOE	105	Pauwela	Maui	Haiku
Linikoi Elementary School	DOE	335	South	Maui	Kahului
Maui Lani Elementary School	DOE	795	Onehee	Maui	Kahului
Maui Waena Intermediate School	DOE	180	Kealii	Maui	Kihui
Kamali Elementary	DOE	5000	Kula	Maui	Kula
Kula Elementary	DOE	611	Front	Maui	Lahaina
Kamehameha III Elementary	DOE	871	Lahinaluna	Maui	Lahaina
Lahaina Intermediate School	DOE	816	Niheu	Maui	Lahaina
Nahienaena Elementary	DOE	3542	Baldwin	Maui	Makawao
Makawao Elementary	DOE	955	Baldwin	Maui	Paia
Paia Elementary	DOE	2945	Iolani	Maui	Pukalani
Pukalani Elementary	DOE	260	Market	Maui	Wailuku
Iao Intermediate School	DOE	2125	Kahekilii	Maui	Wailuku
Waihee Elementary School	DOE	355	South	Maui	Wailuku

INET Implementation Priority List

SiteName	Dept	SiteAdr	SiteSt	Isle	SiteIsland	SiteCity
Hawaii Community College	UH	New			Big Island Hilo	Hilo
University of Hawaii - West Hawaii	UH	New			Big Island Kona	Kapolei
Kalaheo Hanger 111 (Honolulu CC)	UH				Oahu	Honolulu
Hawaiian Studies	UH				Oahu	Kapolei
University of Hawaii - West Oahu	UH				Oahu	
Priority Group 3						
Keawe Health Ctr - DOH	DOH	46	Keawa	St	Big Island Hilo	Hilo
Waialea Health Ctr - DOH	DOH	191	Kuawa	St	Big Island Hilo	Hilo
Keakealani - DOH	DOH	79-1020	Haukapila	St	Big Island Kealahou	Kealahou
Kona Health Ctr - DOH	DOH	79-1015	Haukapila	St	Big Island Kealahou	Kealahou
Wailuku Health Ctr - DOH	DOH	121	Mahalani	St	Maui	Wailuku
Vector Control - DOH	DOH	99-945	Halawa Valley	St	Oahu	Aiea
Ala Moana Health - DOH	DOH	591	Ala Moana	Bl	Oahu	Honolulu
Diamond Head Health Ctr - DOH	DOH	3627	Kilauea	Ave	Oahu	Honolulu
Lanakula Health Ctr - DOH	DOH	1700	Lanakula	Ave	Oahu	Honolulu
Trotter Bldg - DOH	DOH	3650	Maunalei	Ave	Oahu	Honolulu
Wilcox Annex - DOH	DOH	741	Sunset	Rd	Oahu	Kaneohe
State Hospital - DOH	DOH	45-710	Kealahala	Rd	Oahu	Kaneohe
Windward Health Ctr - DOH	DOH	45-691	Kealahala	Rd	Oahu	Pearl City
Leeward Health Ctr - DOH	DOH	860	Fourth	St	Oahu	Pearl City
Waimano Hosp - DOH	DOH	2201	Waimano Home	Rd	Oahu	Pearl City
Priority Group 4						
Hilo International Airport	DOT	No			Big Island Hilo	Hilo
Kona International Airport at Keahole	DOT	No			Big Island Kailua-Kona	Kailua-Kona
Highways DO(Lihue)	DOT	1720	Haleukana	St	Kauai	Lihue
Lihue Airport	DOT	No	Street		Kauai	Lihue
Kahului Airport	DOT	No	Street		Maui	Kahului
I-3 Tunnel	DOT				Oahu	Honolulu
Harbors Police - Nimitz Hwy	DOT	705	Nimitz	Hy	Oahu	Honolulu
Highways DO	DOT	727	Kakoi	St	Oahu	Honolulu
Honolulu International Airport	DOT	300	Rodgers	Bl	Oahu	Honolulu
Pier 1 EDSD	DOT				Oahu	Honolulu

INET Implementation Priority List				Site Name	Dept	Site Adr	Site St	Site Island	Site City
					DOT			Oahu	Honolulu
Pier 1 EMCC					JUD		Kilauea	Big Island	Hilo
Hilo APD					JUD		Kekuakua	Big Island	Hilo
Hilo Family Court					JUD		Kamamalu	Big Island	Kamuela
Waimea Dist Court		64-5000-04*			JUD		Haukapila	Big Island	Kealahou
Kona Dist Court		79-1020			JUD		Pili	Big Island	Keau
Puna Court House		16-200			JUD			Big Island	Waimea
Waimea FC/APD		3461			JUD		Weiwei	Kauai	Koloa
Koloa Dist Court					JUD			Kauai	Lihue
Kauai APD					JUD			Kauai	Lihue
Kauai CC Annex		3970			JUD		Ka'ana	Kauai	Lihue
Kauai Dist Court					JUD			Kauai	Lihue
Kauai Licke Bldg		312			JUD		Eight	Lanai	Lanai
Lanai Court					JUD			Maui	Lahaina
Maui APD		1870			JUD		Honoapiilani	Maui	Lahaina
Lahaina Dist Court					JUD			Molokai	Kaunakakai
Molokai Family Court		55			JUD		Makaena	Molokai	Kaunakakai
Molokai Dist Court					JUD			Oahu	Honolulu
Kapolei Court Bldg		3019			JUD		Pali	Oahu	Honolulu
Child Advocacy Ctr		902			JUD		Adler	Oahu	Honolulu
Detention Home		345			JUD		Queen	Oahu	Honolulu
OPC		1624			JUD		Hart	Oahu	Honolulu
Records Mgmt		45-939			JUD		Pookela	Oahu	Kaneohe
JUD - Kaneohe Dist Court		870			JUD		Fourth	Oahu	Pearl
Ewa Dist Court		1034			JUD		Kilani	Oahu	Wahiawa
Wahiawa Dist Court		87-1784			JUD		Farrington	Oahu	Wahiawa
Waianae Dist Court					JUD			Oahu	Waianae