Executive Summary

The 2007-2008 fiscal year was very exciting for the Pacific Center for Advanced Technology Training (PCATT). During the past year, a number of major initiatives were undertaken to maintain PCATT’s position as the leader in advanced technology training in Hawai’i and the Pacific Rim.

One of the major initiatives included positioning PCATT as a training provider for the U.S. Department of Defense. To achieve this initiative, PCATT expanded critical partnerships with organizations including the Pearl Harbor Naval Shipyard, Siemens Maritime Solutions, and became a closer partner with the Hawai’i Chapter of the Armed Forces Communications and Electronics Association (AFCEA).

At the same time, fundamental changes to support other campuses in the University of Hawai’i Community College System resulted in improved coordination of advanced technology training program offerings on O’ahu, additional revenue generating opportunities for neighbor island campuses, and leveraging of intellectual capital between all campuses.

In addition to these fundamental initiatives, PCATT served over 2,400 clients at the Honolulu Community College campus. System-wide, PCATT reached an additional 182 non-credit students, 185 credit students and 6 apprentices.

This increase in clients served drove PCATT to exception financial performance for the year. Gross Receipts were the 2nd highest since PCATT’s inception in 2000. Expenses remained well managed resulting in higher than expected revenue/expense spread.

PCATT’s financial performance was further improved with the incorporation of grants. These included a sub-award from the National Science Foundation Advanced Technology Education Program “Rapid Tech”, and the University of Hawai’i Rapid Response Fund. These grants helped PCATT achieve its mission, lower its costs and diversify its revenue base.

PCATT’s greatest asset remains its dedicated faculty and staff, and the support it receives from administration and the Directors and staff of the Offices of Continuing Education and Training (OCET) at all seven (7) campuses of the University of Hawai’i Community College System. As a result of a collective team effort, PCATT has continued on a road to success, expanding its definition of advanced technology training, reaching a greater number of clients statewide, and strengthening its overall financial position.

Scott Murakami, Director
I. PCATT DEVELOPMENT INITIATIVE AND NEW PROJECTS

IPv6 - Funded through the Rapid Response Fund
The IPv6 project was selected pursuant to memorandum 05-22 from the US Office of Management and Budget (OMB), which requires all federal agency network backbones be IPv6 capable by June 2008. This project will help to position PCATT as a leader in providing training in IPv6, the next generation internet protocol.

The IPv6 project continued throughout the year. The original test network remained operational with the addition of virtual servers for DNS and web services on the 2001:1860:c108:117 network. An operational plan for migrating government networks called the Migration Zone Plan was devised and refined. This concept of Migration Zones was developed into a set of courses in response to the General Services Administration’s Request for Information on IPv6 training capabilities.

A complete independent lab was setup as a test-bed for implementation of the Migration Zones IPv6 conversion method. An HCC IPv6 forum was formed and meetings were held weekly to discuss the progress of the Migration Zones Plan and the development of the course content.

IPv6 Project Outcomes
- Developed 4 training courses in IPv6. This includes a ½-day course for Managers and Executives, a 1-day course for IT/Network Managers, a 3-day course for Network Engineers/Network Architects, and a 5-day course for Test Engineers/System Administrators.
- Presentation on status of IPv6 for PCATT's IT Summit, May 2008. Presenters were Bill Becker and Dallas Shiroma.
- Authored PowerPoint presentation on IPv6 for presentation at Cisco Academy Conference - Summer 2008. Joint effort by Dallas Shiroma (PCATT), Karen Alderson (Cisco), and Mark Ganser (Alaska Vocational Technical Center).

3D Rapid Prototyping - Funded by the National Science Foundation
PCATT and Honolulu Community College are recipients of a National Science Foundation Advanced Technology Education Rapid Tech Grant administered through Saddleback Community College in Mission Viejo, CA.

Mr. Michael Jennings, AutoDesk Training Center Manager and Professor at Honolulu Community College’s Architecture, Engineering, and CAD Program, is the Principal Investigator on this project. Mr. Jennings is responsible for curriculum development in the 3D modeling specifically in the field of architecture.
This project provides funding for instructor time and resources to purchase a new 3D Dimension printer to supplement the Contex powder based printer purchased in 2007.

The new printer constructs models using ABS plastic resulting in higher strength models. The technology expands PCATT’s capabilities in rapid prototyping by adding the capability to print models with articulating parts.

**VMware Server**

PCATT partnered with VMware as an academic partner. Although VMware does not have a curriculum for academic partners, a training component is currently in development. To prepare to become an academic training partner, PCATT personnel have downloaded software provided by VMware to develop expertise and to teach from an experience base. PCATT hosted a VMware course, *VMware Infrastructure 3: Install and Configure v3.5*, attended by 6 participants. VMware is expected to return on a quarterly basis to offer training until the Academy is established at which time PCATT can conduct VMware training.
II. PCATT TRAINING
A. PCATT COURSE OFFERINGS, OPEN COURSES, INCUMBENT WORKFORCE TRAINING, AND RETAIL TRAINING

Cisco Academy - 131 clients trained in Cisco Academy Courses
PCATT enrolled 29 more people in Cisco Academy training, a 28% year over year increase. A local telecom company sent a significant number of employees to transition their knowledge base from analog to digital. Participants consistently mention the hands-on labs provided by Cisco Academy training as a strong point of this program. With the “packet tracer” capability in the new Cisco curriculum, participants can emulate a network set-up without using routers that enable busy professionals to progress in their training when they are unable to attend class.

Instructor Training - 11 Instructors trained in Cisco Academy
PCATT is an important resource for Cisco Academy instructor training as evidenced by participating schools. Local schools included:
- Nanakuli High School (O'ahu)
- Baldwin High School (Maui)
- Waimea High School (Kaua'i)
- Mililani High School (O'ahu)
- Hawai'i Community College (Island of Hawai'i)

Pacific Rim schools included:
- Guam Community College
- American Samoa Community College
- University of Alaska
Without PCATT, these teachers would be required to travel to mainland schools which would add to the cost of their training.

Courses included IT Essentials: PC Hardware and Software, CCNA 1 Discovery Networking for Home and Small Businesses, CCNA 2 Discovery Working at a Small to Medium Business or ISP, and CCNP: Implementing Secure Converged Wide Area Networks.

Red Hat Academy - 19 clients trained in Red Hat Academy Courses
Adhering to quality standards, PCATT elected not to offer training based on older curriculum that did not match the latest version of Red Hat software. Since the release of new curriculum by Red Hat in January 2008, PCATT has offered two (2) courses with excellent results. PCATT at Honolulu Community College continues as the only location in Hawai'i authorized to offer training and testing for the Red Hat Certified Technician (RHCT) and Red Hat Certified Engineer (RHCE) certifications.

Novell Silver Partner - 6 clients trained in Novell Linux
PCATT continues an active partnership with Novell. Their sales people visit regularly, Novell hosts seminars at PCATT, and they provide training referrals.
The Novell course which prepares individuals for the CompTIA® Linux+ certification was composed primarily of staff from the Department of Land and Natural Resources, a Novell referral which PCATT contacted.

**Autodesk - 78 clients trained in AutoDesk Academy Courses**

In 2006-2007, PCATT purchased a Contex 3D printer, introducing 3D rapid prototyping and additive manufacturing to Honolulu Community College and the University of Hawai'i System. In July and August of 2007, PCATT Autodesk Manager, Professor Mike Jennings attended training in the use of Materialize Magics software to increase PCATT's expertise in 3D modeling through .stl file manipulation.

PCATT benefits through its authorized Autodesk training status by receiving updated software. This provides clients with training on the newest versions of software. Autodesk courses continue to be attended primarily by employees of local architectural firms. Without the PCATT Autodesk Academy, these employees would be required to travel to the Mainland, attend training provided by a trainer flown to Hawai‘i, or try to learn required skills on their own.

**Geographic Information Systems - 32 clients trained in GIS courses**

The number of participants in GIS training increased from 18 last fiscal year to 32 this year. Although these are not large numbers, PCATT continues to see GIS training as an important area for workforce development as the need for GIS skills permeates industries such as health, emergency responders, construction, and many others. With its partnerships with the two foremost providers of GIS software, ESRI and Intergraph, PCATT is well-positioned to continue to offer cutting edge training.

**Oracle - 15 clients trained in Oracle courses**

Oracle continues to offer the Oracle Workforce Development Program (WDP), which enables participating non-credit educational organizations, like PCATT, to deliver Oracle training to students in their local communities.

WDP training prepares students and working professionals for entry-level employment in the following Oracle job-roles:

- Oracle Database Administrator
- Oracle Internet Application Developer/Forms Developer
- Java Solution Developer

PCATT originally offered Oracle 8i database administrator courses, follow by Oracle 9i database courses. Upon the release of Oracle10g, these database administrator courses were offered.

In addition to Oracle training, PCATT has provided classroom and computer lab spaces for an Oracle Corporation event in September 2007. An Oracle
presentation session was held in Waikiki on September 5th, and hands-on sessions were held at PCATT on September 6th. Thirty-four (34) Honolulu IT specialists from business, industry and education attended the hands-on sessions. Additionally, PCATT continues to provide classroom space to the Hawai‘i Oracle Users Group for their quarterly meetings.

The University of Hawai‘i Institutional Research (UHCC IR) Cadre identified a need for Oracle SQL training to support querying the Banner database. A sixteen hour customized course was developed by PCATT Software Engineer, Ms. Monir Hodges, and delivered to seven (7) UHCC IR Cadre personnel on the Windward Community College campus.

**Network+, Security+, CISSP training - 46 Clients trained**

The Department of Defense Directive 8570.1 continues to drive new business to PCATT. This Directive mandates that personnel working in information assurance be certified for employment in those areas. PCATT plans to continue to market its capabilities, especially at the AFCEA Conference which attracts approximately 3,000 military and Department of Defense personnel.

**Microsoft Academy - 3 Clients trained in MCSE courses**

PCATT saw a drop in registration for MCSE certification training this year. Curriculum was revised to attract more interest and a course is currently operating in the 2008-2009 fiscal year. The clients will be contacted to learn more about their needs and reaction to the curriculum. The uncertainties of Vista and the release of Windows 7 in February 2008 are expected factors that contributed to low enrollment. Depending on requests from industry, PCATT will make decisions about offering Windows Server 2008.

PCATT continues as a local Academy in the Microsoft IT Academy Program with access to the Microsoft Official Curriculum used in both PCATT and in the Honolulu Community College credit Computing, Electronics, and Networking Technology program.

**BICSI - 34 participants trained in BICSI courses**

The Building Industry Consulting Service International, Inc. (BICSI), is a telecommunications association with the mission to lead the telecommunications industry in the enhancement of quality services and methods around the world by providing excellent education, promoting skill sharing, and assessing knowledge with professional registration programs.

Since 2005, PCATT has operated a certified BICSI cabling laboratory offering BICSI cabling courses in partnership with CrossBow Communications, an IT training and consulting company located in San Jose, California. CrossBow is a multiple site license holder for BICSI training and is providing the site license and a large amount of classroom cabling supplies and material for training. PCATT
provides equipment, tools, and the instructor needed for the training. A revenue sharing agreement has been established for the partnership.

Three levels of BICSI cabling courses have been offered
- BICSI Installer Level I Training for entry level cable installers
- BICSI Installer Level 2 Training for cable installers with 2 years of experience
- BICSI Technician Level Training for cable installer with 5 or more years of experience

Several cycles of the three courses have been offered in the past year with increased demand over the past years. Construction companies are realizing that having BICSI certified cablers on their staff is a benefit for bidding on construction contracts, especially military contracts.

PCATT continues to partner with the BICSI corporate training office to offer classroom BICSI courses. BICSI provides the instructor, training materials and registration, and PCATT provides the training location. Two (2) courses and one (1) exam session were held this past summer.

**First Time Course Offerings**
PCATT campuses communicate with clients to meet workforce development needs. Listed below is a summary of courses new to PCATT in 2007-2008. Not reflected in this listing are upgrades to programs such as the transition to new Cisco curriculum and upgrades in AutoCAD from 2007 to 2008. These upgrades are expectations that PCATT clients have and upon which they can depend. PCATT will offer the latest version in use by industry and will help people transition to that version.

**Networking:**
- Network+

**Telecommunications:**
- Fiber Optic Certification Exam with the Fiber Optic Association

**Graphic Design:**
- 3D Computer Graphics Primer
- Creative Digital Printmaking with InkAid
- Digital Printing Workshop
- Introduction to Digital Drawing
- Looking Good in Print - Typography as Design

**Digital Photography:**
- Principles of Digital Photography
- Selecting a Digital Point-And-Shoot Camera
- Understanding your Digital Point-And-Shoot Camera
• Digital Photography 101
• Digital Photography for Realtors
• Travel Photography
• Working With Photographs on the Computer
• Adobe Photoshop: Basics and Beyond for Photographers
• Introduction to Studio Lighting

Video and Web:
• Podcasting - the Legal Issues
• Principles of e-Marketing
• Principles of e-Commerce
• Principles of PHP and MySQL
• Ohana Chronicles: Documenting History

Music:
• Introduction to Recording and Music Technology

Professional Development and Business Applications:
• Introduction to Project Management

Virtualization:
• VMware Infrastructure 3: Install and Configure v3.5
II. PCATT TRAINING

B. MILITARY/DEPARTMENT OF DEFENSE TRAINING

Military
PCATT staff continues to put effort into attracting active duty and retired military clients into PCATT courses and programs. Extensive mail, email and phone communications take place between PCATT staff members and Military Education Directors and Counselors on O‘ahu. The HCC Coordinator of Off-Campus Education Programs delivers quarterly PCATT schedules of courses to military bases served by this Program. Schedule of courses are hand delivered to the bases not served by the HCC Off-Campus Program.

In conjunction with the Armed Forces Communication and Electronics Association (AFCEA) TechNet 2007 Conference held in Waikiki in November, one day of free training was offered to AFCEA registrants at the PCATT/Honolulu Community College facility. Four (4) workshops were offered two times during the day by PCATT and Hawai‘i Pacific University personnel. The workshops and presenters included:

- **IPv6: Is it the Future and Do We Need It?**
  Presenters: Bill Becker and Dallas Shiroma, PCATT

- **Military Careers in Communications and Computer Security**
  Presenters: HPU Personnel

- **Wireless Technologies for the Warfighter**
  Presenters: HPU Personnel

- **IT Certification - Why and How?**
  Presenter: Jerry Cerny, PCATT

Efforts were made during the past year to expand PCATT IT training offerings to meet the DoD Manual, 8570-01-M, Information Assurance Workforce Improvement Program. Several certification preparation courses were delivered to military personnel including Security+, Network+, and CISSP. These certifications meet the requirements of DoD 8570-01-M.

A partnership with ProTrain Education was established. ProTrain offers several additional online courses which meet the requirements of 8570-01-M. The partnership includes a revenue sharing agreement when students register for the ProTrain courses.

Efforts have been made to establish a Joint Venture between Hawai‘i 5-0 Technology Services, Inc. and Honolulu Community College to offer training at the Pearl Harbor Naval Shipyard. The Joint Venture would allow PCATT to offer Siemens’s UGS Product Lifecycle Management software training to the incumbent workforce at the Shipyard.
Tuition Assistance (TA) for active duty military personnel continues to grow. The Army, Navy, Air Force and Marines now provide TA for PCATT Cisco, Microsoft, Red Hat and Fiber Optics courses.

Veterans Assistance (VA) educational benefits for retired military personnel remains active. VA benefits are available for the following PCATT non-credit courses: Cabling and Fiber Optics, Cisco, Microsoft, Red Hat and Linux, Oracle, Solaris System Administration, Autodesk, and Primavera. A request for benefits for the Autodesk program has been submitted and the approval is pending. The Director, Office of the State Approving Agency for Veteran Training, conducted a comprehensive audit of PCATT in May 2008. Following the audit, the Director, State Approving Agency, determined that the PCATT VA program continues to more than adequately meet the requirements for approval. The Director complimented Ms. Germaine Tsukamoto, PCATT Secretary and Non-Credit VA Clerk, for her knowledge and attention to detail in maintaining required VA student files.
II. PCATT TRAINING
C. UNIVERSITY OF HAWAI'I COMMUNITY COLLEGE
SYSTEM-WIDE PROJECTS

PCATT, as a consortium of the seven campuses of the University of Hawai‘i Community College System, offers advanced technology training through the Offices of Continuing Education and Training (OCET) at each of the Community College campuses.

In prior years, PCATT support came through a grant program that provided financial resources necessary for each campus to carry out advanced technology training of their choice. This process resulted in a number of shortcomings. First, the grant resulted in a short-term planning horizon. Second, it resulted in duplicated services between campuses, fostering competition between the campuses. Third, the grant could not leverage non-financial resources between campuses and thus, did not capitalize on sharing intellectual capital between campuses.

In discussions with the Directors of the Offices of Continuing Education and Training at each of the 6 community college campuses and the Director PCATT, it was determined that a remedy to the identified shortcomings could be achieved through improved coordination and identification of programs that build on the strengths at each campus.

PCATT financial support would then be used to address issues in advanced technology training initiatives that support their respective County Comprehensive Economic Development Plan (CEDs).

The expected result of the move from the PCATT grants to the coordinated and planned initiatives include:

1. Earlier funding in the fiscal year
2. Improved planning and support of economic development by supporting the county Comprehensive Economic Development Plans
3. Reduction in duplication and competition between campuses (primarily on O‘ahu)
4. Expansion of advanced technology initiatives beyond information technology
5. Improve leveraging of intellectual capital, shared between campuses and facilitated through PCATT.

In 2007 and 2008, system wide initiatives through PCATT resulted in 182 non-credit clients, 185 credit students, and 6 apprentices trained through system-wide PCATT initiatives.
1. **KAUA‘I COMMUNITY COLLEGE - $34,497**

**Microsoft Server 2003 Training - 19 Clients Trained**

In working with the Kaua‘i CC OCET, PCATT and the Kaua‘i CC OCET jointly addressed advanced technology training needs for the Pacific Missile Range Facility (PMRF).

In addition to training 19 clients, this project resulted in an estimated savings of $15,206 to Kaua‘i Community College through collaboration with PCATT.

**Security + Training - 13 Clients Trained**

The PCATT and Kaua‘i CC OCET collaboration provided PMRF with Security+ training to meet the Department of Defense Information Assurance Manual 8570.1 requirements. Training in Security+ was provided by two PCATT Honolulu CC faculty members.

Revenue from this training, after costs, were split equally between PCATT at Honolulu CC and the Kaua‘i CC OCET office. As a result, PCATT was able to generate an additional $14,659 in revenue reported through the Kaua‘i CC OCET.

**CCNA Short Term Courses - Development Project**

Funding for this initiative supports both the Kaua‘i CC credit Cisco Project, a sixteen week program and provides the Kaua‘i CC OCET office with the opportunity to offer short term Cisco training in the 2008-2009 fiscal year.

2. **MAUI CC - $5,000**

Participated in the NCATC Summer workshop and Fall conference. This allowed Maui the opportunity to network with national workforce development organizations and multinational corporations focusing on developing advanced technology training.

3. **HAWAI‘I CC - $10,000**

**AutoCAD - 31 Clients Trained, 28 Credit Students, 6 Apprentices**

Working with the Hawai‘i CC OCET office, PCATT and the Hawai‘i CC OCET jointly addressed advanced technology training needs for corporate, state and county employees of the county of Hawai‘i in introductory, intermediate, and advanced AutoCAD training. PCATT funds provided essential equipment upgrades, non-credit instructor personnel, and marketing support for this course.

This project resulted in additional $7,950 in revenue for the Hawai‘i CC OCET.
PCATT funding also supported Hawai‘i CC Architecture, Engineering and CAD faculty develop by supporting training in REVIT, in answer to workforce development requests for training in this application.

4. LEEWARD CC - $54,692  
Digital Media Production Credit Program 15 Credit Students, 17 Certificates  
Funding for this project provided computer upgrades and faculty development at the National Association of Broadcasters.

5. WINDWARD CC - $15,000  
Tech Talk 2008  
Funding to Windward CC was used to prepare for the 2008 TechTalk event. The initial event in 2007 was a resounding success with great feedback from the community. More than 300 participants attended Tech Talk 2007.

The 2008 event will feature a number of breakout sessions. Some of the featured advanced technologies include information technology, biotechnology, health care, media and digital arts.

6. KAPI‘OLANI CC - $40,184  
New Media Arts - 101 Clients Trained and 142 Credit Students  
Funding from the New Media Arts program went to upgrading computers in the Kapi‘olani Community College PCATT lab in Kopiko 202 and video tutorials. These system upgrades allowed the joint efforts between Kapi‘olani CC and PCATT to offer non-credit courses and expanded lab utilization.

Over 1,000 individuals participated in events at the PCATT Kapi‘olani CC lab. This included 142 students in 10 credit courses and 101 students in 8 non-credit courses.
II. PCATT TRAINING
D. P-20 INITIATIVE SUPPORT

HAWAI‘I IT ACADEMY SUMMIT 2007
PCATT hosted its sixth annual IT Academy Summit on May 22 – 23, 2008. The theme of this year’s event was “The World is Flat”. Approximately one hundred (100) attendees participated, including private and public high school teachers, community college instructors and DOE IT and Curriculum Specialists, fifteen (15) from the neighbor islands.

As with previous IT Summits, several objectives were met during the conference. The first was to gather all the Academies in the state in one location so the Academy instructors could meet one another to network and lay the groundwork for future plans. The second was to increase awareness of the latest Academy offerings and training available through PCATT, and how PCATT can be a major supporter of technology training in the public schools and colleges.

Keynote speakers for this year’s event included Frank Callaham, Apple Development Executive for Information Technology, and Vern Takebayashi, Associate Professor, Information and Computer Science, Honolulu Community College. This was the first time a colleague from Honolulu Community College has been a keynote speaker.

For the fifth year, the Hawai‘i DOE Magnet E-Academy Program partnered with the IT Summit to offer an update to Magnet E-Academy teachers. Breakout sessions included updates on the new Cisco curriculum, overviews of Advanced Podcast Creation, Building a High Availability, Multiservice Campus Network, Virtualization, Mac OS X Server, Social Networking, Wireless Fundamentals Using Apple’s AirPort Base Station, HCC’s CENT Bachelor’s of Applied Science Degree articulation agreement with UH West O‘ahu, 3D Scanning on Your Desktop, Certification – Why and How, Google Search Operations, IPv6, Microsoft Windows 2003 Server, and SketchUp.

The evaluations indicated that participants found the Hawai‘i IT Academy Summit informational and worthwhile. They felt that the sessions covered a wide variety of topics and provided them with exposure to cutting-edge technology.
APPLE SUMMER INSTITUTE
On May 19 - 21, 2008, PCATT in collaboration with Apple, Inc. held the second annual PCATT/Apple Summer Institute. The workshops were free and targeted to Hawai`i’s educational community to learn about the latest digital trends.

This event was held on the Honolulu Community College campus and was open to Administrators, Tech Coordinators, Teachers and Technicians in the K-20 community who are interested in utilizing Apple technology to maximize productivity and enhance their teaching. Special invitation only events were offered the first day. Hands-on and presentation events on all three days gave participants the skills to incorporate Apple’s latest technology into their classrooms or offices. Seven tracks were offered.

Track 1 - Virtually There
Explored current and developing methods for deploying rich educational content.

- **Client Collaboration Tools** - Client-side tools (iChat, iChat Theater, Screen sharing, etc.) that make real time collaboration easy.
- **Server Collaboration Tools** - Enhancing collaboration with Wikis, blogs, calendar sharing and chat. Leopard Server makes this a reality.
- **Podcast Producer** - Exciting new server based automation of the Podcast workflow. Designing, planning and creating the Podcast Producer infrastructure.
- **Video Podcasting** - Advanced Podcasting applications for the seasoned podcaster (Screenflow, ProfCast, etc.)

Track 2 - Maximum Mac
Getting the Most Out of Your Mac

- **Mac 101** - For new Mac Users and others wanting to refresh their OS X Skills
- **Digital Media 101** - Participants learned how to simplify their digital media workflow with iLife and OS X
- **iWork 101** - Participants used Keynote and Pages to show their ideas

Track 3 - Kick It Up a Notch
Apple’s Emmy Award Winning Video Offerings

- **Final Cut Primer** - For novices who want to explore more sophisticated digital video editing.
- **iMovie ’08** - Perfect for student projects and 1st time users. A foundation for more advanced video editing.

Track 4 - Podcasting
A Passport for Digital Immigrants

- **Produce Your Own Podcast** (A and B)
- **iTunes: More than music** - It’s a vast resource for FREE, rich K20 education content.
Track 5 - Symbiosis
Macs in the Enterprise
  Next Generation Academic Computing - New platforms are available today that will change the face of computing for you and the classroom.
  Creating a Seamless Environment - Apple’s cross-platform support capability provides compatibility at multiple levels.
  Building Your Sandbox - Create a relevant and safe environment for 21st century learners.
  Podified Learning - A case study on using iPods in the classroom.
  Supporting the Enterprise - Large-scale imaging and deployment techniques.

Track 6 - iLife Redux
In depth look at selected iLife '08 applications
  iPhoto - Advanced concepts and techniques for using iPhoto.
  iWeb - Advanced concepts and techniques for using iWeb
  GarageBand - Advanced concepts and techniques for using GarageBand

Track 7 - Master Mac
Strengthen your chops with Aperture. Advanced FCS techniques and Mac OS X Server Fundamentals.
  Final Cut Studio's Motion - Overview of using Motion in Final Cut Studio
  Final Cut Studio's Soundtrack Pro - Overview of using Soundtrack Pro in Final Cut Studio
  Mac OS X Server Fundamentals - Gain the skills, tools, and knowledge to implement and maintain a network that uses Mac OS X Server
  Digital Design - Using Photoshop and InDesign on a Mac
  Aperture Overview - Learn how the new Aperture is dramatically faster and easier to use, letting you organize, edit and publish photos like a pro
II. PCATT TRAINING

E. OTHER TRAINING ACTIVITIES

Contract Training
Contract training offers a way for PCATT to provide training that is customized either in content, scheduling, format, or location. PCATT conducted 13 contracts for 134 individuals in topics as simple as Access for finance professionals and IT Essentials to J2EE: Web Component Development and SQL for Institutional Researchers. Contract training was provided to:

- United States Marine Corps, 3rd Radio Battalion, Marine Corps Base Hawai‘i - Kaneohe Bay
- Juvenile Justice Information System, Department of the Attorney General - State of Hawai‘i
- Institutional Research Cadre, University of Hawai‘i Community College campuses
- Guam Community College, Mangilao, Guam
- Pacific Missile Range Facility, Barking Sands, Kaua‘i
- Marriott Hotels Hawai‘i, Finance Division

Training Facilitation
PCATT shares its technical expertise to support companies, associations, and non-profit organizations so they can conduct their own employee and member training. Increasingly complex lab configurations have been requested, especially from returning clients, which demonstrates their confidence in PCATT’s technical capabilities. This fiscal year, PCATT supported forty-nine (49) training events and meetings.

Training topics are those beyond the current knowledge base of PCATT so it expands the training reach of PCATT. A sampling of topics includes:

- Thermal imaging
- Expedition (Construction project management)
- Raiser’s Edge (Nonprofits fundraising management)
- VMware (Server virtualization)
- Juniper networks
- Hydrologic watershed modeling
- Internet crimes and forensics
- CommVault System Administration
- Cisco SAN technology and WAN optimization

Examples of companies and groups are listed below. Providing training support has led to referrals, enrollments, and partnerships with mutually beneficial results.

Corporate
- Access Event Network
• Adams Telecom
• Apple Inc.
• Cisco Systems, Inc.
• Fluke Electronics
• Novell
• Oracle
• Phoenix TS
• Red Hat, Inc.
• TCP Inc.
• United Parcel Service
• VMware
• Wonderware

Industry and Associations
• AIGA (American Institute of Graphic Artists)
• AITP (Association of Information Technology Professionals)
• BICSI
• Hawai‘i Oracle Users Group
• VMUG (VMware Users Group)

Nonprofits/Government/Education
• Hawai‘i Alliance for Non-Profit Organizations
• Kamehameha Schools, Extension Education Division
• New Urban Research
• Roosevelt High School
• Department of the Attorney General, State of Hawai‘i
• Early Childhood Symposium for UH Manoa

Overall, 93% of the users rated their satisfaction as a 5 on a scale of 1 to 5 with 5 as the highest and 1 as the lowest. 7% rated their satisfaction level at a 4. Overall safety of facilities, and facilities in general were similarly rated. Quality of services, customer service, quality of equipment support, responsiveness to requests, and overall safety of facilities were all rated at a 5. All respondents indicated they were “very likely” to recommend PCATT services to others.

“PCATT is a valuable resource for Hawai‘i, providing the training needed for the workforce that the state will need today and in the future. The PCATT staff is enthusiastic and helpful. They are willing to do what is needed so that the students can be successful.” - Rick Spurgeon, RMCE Computer Systems Engineer Red Hat, Inc.

Testing and Proctoring
The ability to provide both training for professionals to prepare for industry certifications and a place to take their certification exams is a powerful combination which PCATT provides. Besides testing for IT professionals, PCATT
offers high stakes testing for other professions such as Foreign Services Officers, the Board of Examiners in Optometry, the American Dental Association, Athletic Trainers, Automotive Service Repair, Social Workers, and others.

The number of people tested in the 2007-2008 year was 1,323, an increase of 508 test-takers for a 62% yearly increase. The ability to manage this is based on the technical expertise of PCATT and a conscientious and forward thinking staff. The testing center coordinator and proctors work together to optimize PCATT’s ability to assist customers. Special test dates are opened for people who come from Asia or the Pacific Rim area, and additional dates are opened when testing demand is high.
III. CURRENT OPERATIONS  
A. PCATT GENERAL OPERATIONS

Personnel
There were a number of personnel changes in 2007-2008 that improve the operational efficiency and stabilize personnel within PCATT. Ms. Rae Treinen was selected to fill the Administrative and Fiscal Support Specialist position. Prior to her appointment, Ms. Treinen was on temporary assignment in this position.

Mr. Francis Wong was selected to fill the new Information Technology Specialist position in the Information Technology Center, Technical Desktop Support Office.

Ms. Rosemary Sumajit, Systems Administrator in the Information Technology Center was on sabbatical leave from August 1, 2007 to July 31, 2008.

Professional Development and Team Building
To help establish an aggressive, forward looking consensus on the direction of PCATT and the Information Technology Center, three planning retreats were held in the 2007-2008 year.

In January 2008, the PCATT leadership team met to revisit the PCATT mission and identify strategic objectives. In February 2008, the ITC technical team met to identify common goals and improve intra-office communications and team building. In June 2008, all PCATT and ITC faculty and staff gathered for a full day retreat at Ho‘omaluhia Botanical Garden.

These initiatives forged stronger relationships between faculty, staff and administration. The planning sessions helped to identify the common goals served by all PCATT team personnel (and identify and appreciate differences in personality to foster continued understanding and cooperation within the PCATT team.)

Other professional development initiatives included:

- System-wide LERN Marketing Institute
- VMware training for PCATT and ITC Staff
- Project Management for PCATT staff

“Doing business with PCATT is a breeze. The Staff is friendly, courteous, and professional. The facilities are top-notch. We value the partnership we’ve established with PCATT in providing Novell SUSE Linux training. You are the premier training facility in Hawai‘i.” - Brian Hervey, Client Executive, Novell Inc.

Marketing
The marketing theme for the year is “Get Connected.” With creative imagery,
Communication Arts majors from Honolulu Community College depicted ways PCATT training and the technology industry help individuals “get connected.” For example, training partnerships with industry leaders like Cisco and Oracle connect individuals with quality training in Hawai’i. The graphics concepts and designs of the Communication Arts students result in professional level print and advertising materials.

The marketing goal for PCATT is to continue to build brand recognition. As a consortium of the University of Hawai’i Community Colleges, PCATT promotes unique advantages offered by this brand which is high quality training and leadership provided in Hawai’i by people who understand the needs of local companies.

Print Media
To reach the individual in need of training as well as the decision maker, PCATT selects print media that has a longer shelf life and pass-along readership. Publications are selected for their ability to reach target markets such as the tech community, the training decision maker, and business and military communities. The PCATT Director took advantage of the opportunity to share his expertise by writing a column in Pacific News Bytes, probably the only tech publication for Hawai’i. Advertisements were placed in the following publications.

1. Pacific Business News
2. Pacific Business News Book of Lists
3. Hawai’i Business Magazine
4. Pacific News Bytes
5. Hawai’i Military Magazine
7. Society of Human Resource Management Hawai’i Vendor Directory

PCATT’s schedule of courses is printed and distributed quarterly with a direct mailing to 2,125 homes and businesses. Copies are also delivered to locations that require printed schedules such as military education offices, libraries, Workforce Investment Board offices, and Employment Training Fund offices. Although it is tempting to do away with a printed schedule in this digital age, there are companies and organizations that require a printed schedule for funding approval, and LERN, the premier consulting organization for continuing education, recommends a printed schedule as an important component of marketing.

PCATT tried a new venue by advertising in a map published by the Chamber of Commerce of Hawai’i in partnership with the City and County of Honolulu. These maps were distributed through Satellite City Halls, military bases, and advertising establishments. By advertising through different distribution modes, PCATT reaches new audiences.
**Television/Radio**
With the introduction of new Cisco Academy training curriculum, PCATT, in partnership with Cisco appeared on *Dot Biz* with Mike Buck’s KHVH Talk Radio 8:30 AM on October 25, 2007. Kent Leong from Cisco and Dallas Shiroma from PCATT introduced the advantages of the new teaching approach during the half hour radio show. The following week, they were guests on the *Morning Show* on KHON Channel 2 with Kirk Matthews.

Bill Becker, Hal Corcoran, and other PCATT contributors videotaped a series of Tech Tips. These aired on Tech Box every Thursday at 9 pm with 12 repeats each week on cable channel OC 16.

**Web Marketing**
PCATT has stabilized its look and organization of the Web site, matching the image on the site to the image on the quarterly printed schedule of courses. On a quarterly basis, this creates a new look within a set format. Returning clients know where to find information they are seeking. The Web site continues to be an important marketing resource and a point of reference for callers.

Although traffic on the site decreased by 289 unique visitors, a 2% decrease, from 16,608 last year to 16,319 this year, the number of pages viewed increased significantly. In 2006-2007, the number of pages viewed was 401,388. In 2007-2008, the number of pages viewed was 685,946, an increase of 284,558 pages or 71%.

The Oracle database-generated schedule, developed by a PCATT programmer, provides internal office efficiencies. Staff and student assistants are able to add, update, and delete courses with ease.

**PCATT eZine**
PCATT sought to make the email magazine (eZine) more participatory through invitations to have people place their names on interest lists for training and through responses to simple questions with rewards such as a Cisco press book written by PCATT Cisco Lead Instructor, Wayne Lewis. The PCATT eZine continues with a goal to provide tech updates and to connect the PCATT client base with training resources. Distribution has increased to 1,167 subscribers from 916 last year.

**Referral Building**
**Site Visits and Tours**
People are impressed when they visit a PCATT facility so visits, joint presentations, meetings, and tours are encouraged. Until they visit, PCATT is just a name. Visiting groups included:

- BICSI Western Region Meeting
- Neil Abercrombie’s Citizenship Conferences
Seminars and Workforce Development Events
PCATT selects venues where the tech person or the person making training decisions can be exposed to PCATT and its training opportunities. The ability to interact directly with these individuals assures current and past customers that PCATT is still a solid training choice and creates a means of communication with new customers. PCATT participated in the following events:

- Home Entertainment and Technology Expo
  September 14 and 15, 2007
  At the Honolulu Design Center
- Society of Human Resource Managers Conference
  October 8, 2007
  At the Sheraton Waikiki Hotel
- AFCEA TechNet Asia-Pacific International Conference and Exposition
  November 6, 7, and 8, 2007
  At the Sheraton Waikiki and Royal Hawaiian Hotels
- Science and Tech Day at the Capitol
  March 5, 2008
  Sponsored by the Hawai‘i Science and Technology Council
- Technology and Internet Expo – O‘ahu
  Oceanic Time Warner Business Class
  April 11, 2008
  At the Blaisdell Exhibition Hall
- Technology and Internet Expo - Maui
  Oceanic Time Warner Business Class
  May 9, 2008
  At the Maui Beach Hotel

Associations and Memberships
Memberships in international, national, and local technical and training associations provide venues for networking and maintaining PCATT’s edge. PCATT enjoys member benefits and the organizations in turn learn from PCATT’s areas of expertise. With its focus on developing curriculum in IPv6, the
newest membership is with the IPv6 Forum based out of Thailand, one of the leaders in IPv6 implementation and research. Associations and memberships include:

- IPv6 Forum
- National Coalition of Advanced Technology Centers (NCATC)
- Armed Forces Communications and Electronics Association (AFCEA)
- Building Industry Consulting Service International, Inc. (BICSI)
- Society of Human Resource Managers (SHRM)
- Pacific Telecommunications Council (PTC)
- Hawai‘i Small Business IT Hui (HSBIT)
- Chamber of Commerce of Hawai‘i
- Hawai‘i Science and Technology Council

PCATT also works collaboratively with organizations such as the VMware Users Group, Hawai‘i Oracle Users Group, Hawai‘i Open Source Foundation, Association of Information Technology Professionals, and the High Technology Development Group to co-sponsor or co-locate events.

It would be easy to say everyone knows PCATT, but that’s not true and that’s not doing enough. PCATT’s training is important to Hawai‘i’s tech industry. With the pervasive influence of computers and technology, PCATT’s influence goes beyond the tech industry. PCATT must continue to be out there, communicating, listening, and moving forward to fulfill its role as the leading organization for developing and providing advanced technology training in Hawai‘i and the Pacific Rim.
III. CURRENT OPERATIONS
B. Operational Efficiency Improvement Projects

Training Assessment
The online evaluation instrument for courses continues to work well for PCATT. With reminders, instructors have allowed time to have their participants complete the online course evaluation. PCATT needs to obtain 100% of the course evaluations in order to have a full picture of its performance.

Participants continue to show a high degree of satisfaction with PCATT training. When asked to provide a “yes” or “no” response regarding their overall satisfaction of their course, 97% of PCATT participants answered “yes” they were satisfied, 2.5% responded “no” they were not satisfied, and .5% did not respond to that question.

All ratings were very high with little change year over year. The following is a summary of evaluations for all courses:

On a scale of 1 to 5 with 5 as the highest and 1 as the lowest:

<table>
<thead>
<tr>
<th></th>
<th>2006-2007</th>
<th>2007-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Facilities</td>
<td>4.59</td>
<td>4.62</td>
</tr>
<tr>
<td>Registration Process</td>
<td>4.56</td>
<td>4.62</td>
</tr>
<tr>
<td>Instructors’ Subject Mastery</td>
<td>4.70</td>
<td>4.60</td>
</tr>
<tr>
<td>Instructors’ Level of Preparedness</td>
<td>4.57</td>
<td>4.59</td>
</tr>
<tr>
<td>Instructor’s Ability to Communicate</td>
<td>4.60</td>
<td>4.60</td>
</tr>
<tr>
<td>Instructor’s Interaction w/Class</td>
<td>4.67</td>
<td>4.67</td>
</tr>
<tr>
<td>Overall Instructor Rating</td>
<td>4.70</td>
<td>4.64</td>
</tr>
</tbody>
</table>

Office Efficiencies
PCATT has a highly motivated staff who create a professional work environment. Student assistants are held to the same standards and while PCATT operated without a registrar and a clerk, student assistants were trained to manage most of the daily registration functions. Documentation of operating procedures provided instructions and standards for all staff. A clerk on “emergency” status has since been hired and is performing very well. It is expected that both clerical positions will be filled in the next fiscal year.
**Technology and Equipment**

As the technology climate changes, customers have higher expectations of PCATT labs and facilities which keeps staff challenged to research, test, implement, and model campus and industry standards. Although technological changes and higher expectations move forward at an ever-increasing pace, PCATT’s method of operation has served it well.

- Where possible and appropriate, offer hands-on training
- Equip and maintain efficient tech equipment and lab environments
- Speak from experience using sound pedagogical techniques
- Follow industry standards, taking the lead as appropriate

To maximize the use of PCATT facilities and equipment while maintaining PCATT’s high standards for advanced technology training requires constant attention to detail without losing sight of the big picture. PCATT's technical staff has risen to this challenge. They have the ability to make multiple and sometimes conflicting set-ups to run at night with one course and during the day with another, and have it appear almost effortless to the customer. The result… customers request more of PCATT and they return and refer clients to PCATT. Staff provided technical support for Wonderware running on Microsoft Virtual PC, Primavera Expedition Construction Management software, VMware installation and configuration, Apple remote desktop training support, computer forensics training, and many specialized set-ups.
IV. OUTCOMES
A. PCATT 2007-2008 Goals

Goal 1: Continue to Increase accountability for PCATT RFP and system grants

By moving to longer term funding solutions for training and investment in advanced technology applications, the funds currently used for PCATT’s System Grants will articulate with county Comprehensive Economic Development Plans, which will continue to support regional economic development and ensure that funds support identified and strategic economic development initiatives.

Outcome:
This goal has been accomplished. In 2007-2008, grants were provided only to the community colleges on O’ahu. Hawai‘i CC, Maui CC, and Kaua‘i CC were funded through planned projects that support their respective County CEDs plans.

This goal was further supported by the Directors of Continuing Education and Training at the four (4) O’ahu community college campuses. The Directors agreed to eliminate repetition of programs and improve coordination by collectively supporting Tech Talk at Windward CC, information and communication technology at Honolulu CC, process technology at Leeward CC and New Media Arts at Kapi‘olani CC.

Goal 2: Continue to Expand and Ensure Certification Courses Remain Current, Offering the Latest Edition of IT Certification and Academy Programs

Continue to implement new certification programs/courses as research and customers needs identify them. Ensure that PCATT curriculum remains current for employer needs.

Outcome:
This goal has been accomplished but also remains on-going. The addition of the new Cisco Academy curriculum, upgrading to Oracle 10g, and partnering with VMware as an academic partner are all examples of the outcomes of this goal. However, PCATT faculty and staff remain vigilant to this goal as industry recognized certifications remain the core competence of PCATT’s training operation.

Goal 3: Continue Marketing to the Military through specifically targeted military training initiatives

Remain active in AFCEA and continue to position PCATT as the chosen training organization for all branches of the Military in Hawai‘i.
**Outcome**

2007-2008 has witnessed very successful outcomes in moving toward this goal. Key partnerships were strengthened with the Pearl Harbor Naval Shipyard and the Hawai‘i Chapter of the Armed Forces Communications and Electronics Association and new partnerships were formed with Siemens Maritime Solutions and Hawai‘i 5-0, a local 8(a) certified company.

As a result, PCATT’s management team believes that strategic partnerships have been formulated and strengthened, new training opportunities have been secured, and outcomes for this market segment are expected to continue to improve in the future.

**Goal 4: Complete the IPv6 Project**

Complete phases 2 and 3 of the IPv6 project by the end of June 2008. Begin developing curriculum for IPv6 training that goes beyond Boot Camp training based on the experience gained through this development project.

**Outcome:**

This goal has been completed. On June 30, 2008, curriculum including labs, PowerPoint presentations, lecture notes, course syllabi and instructor manuals were completed. The PCATT Director has met with personnel from the Office of Technology Transfer and Economic Development. As a result, a Curriculum License Agreement was drafted and forwarded to the University of Hawai‘i Risk Management Department for review and comment.

**Goal 5: Increase capability and proficiency in use and application of 3D virtual reality technology**

Develop expertise in content development utilizing the EON Reality Professional Application. This will provide technical capabilities that allow EON to begin outsourcing projects to PCATT.

**Outcome:**

This project has been put on hold. PCATT submitted a request to the National Science Foundation for a planning grant to develop a Virtual Heritage Program. The PCATT Director worked with a grant writer in response to a NSF Request for Proposal. The project was not funded and continuing the projects would require the reallocation of manpower. This project will be reviewed in the 2008-2009 fiscal year.

**Goal 6: Continue to expand capability and proficiency in Rapid Prototyping**

Expand the capabilities of 3D printing to include 3D scanning and assess the viability for printing in other mediums.
Outcome:
This goal was accomplished. In 2007 and 2008, PCATT purchased 3D Next Engine Scanner for the AutoDesk Training Center. This allowed the faculty members to begin developing expertise in the utilization of imaging 3D digital files. PCATT also supported the National Science Foundation Advanced Technology Education Program “Rapid Tech”. This provided critical funds for developing expertise and curriculum for rapid prototyping in architecture at the PCATT AutoDesk Training Center.

Goal 7: Expand on new technologies for PCATT
Continue to look for new technologies through PCATT’s national network of advanced technology centers. These technologies should be applicable to Hawai‘i’s economic expansion and/or regional economic initiatives by ensuring a technically capable and highly skilled workforce.

Outcome:
Through PCATT’s support of neighbor island campuses and its membership and active participation in the National Coalition for Advanced Technology Centers, PCATT created the opportunity for DOCETs and/or their representatives to participate in the NCATC Summer Workshop and Fall conference. These events allowed neighbor island campuses to gain greater exposure to advanced technology training initiatives on a national level and facilitated the transfer of technology throughout to state of Hawai‘i.
IV. OUTCOMES
B. PCATT 2008-2009 Goals

Goal 1: Continue marketing and expand training services to the U.S. Department of Defense.
Servicing the Department of Defense will remain a focused initiative for 2008-2009. This is a major economic engine in Hawai‘i and with the onset of the manual for Information Assurance (8570.1) and the migration to IPv6, the Department of Defense as well as federal agencies remain an excellent target market for PCATT.

Goal 2: Refine the PCATT planning process for supporting system-wide coordinated projects that support county Comprehensive Economic Development Plans.
Building upon the initial foundation built in 2007-2008, this goal is expected to yield higher revenue for individual campuses, help the Offices of Continuing Education and Training meet their respective CED’s initiatives, and reduce redundant program investments throughout the University of Hawai‘i Community College campuses.

Goal 3: Expand grant opportunities to diversify revenue and reduce costs for new program development
This goal will allow PCATT to diversify its revenue sources. Although grants offer financial resources, PCATT must be mindful of the types of funds that it applies for and ensure a fit that allows PCATT to continue to serve its mission.

Goal 4: Distribute IPv6 curriculum nation wide
With the completion of the IPv6 curriculum, focus needs to shift on the curriculum license agreement and the distribution of the curriculum through national organizations like NCATC. Although curriculum development is a new initiative to PCATT, it offers the opportunity for advancing PCATT on a national level with further revenue diversification.

Goal 5: Continue to expand and develop expertise in 3D modeling in architecture in the AutoDesk Training Center.
In addition to 3D modeling at Honolulu Community College, PCATT has been supporting AutoCAD and Revit Training at Hawai‘i CC. Expertise in this area offers expanded training opportunities statewide and ensures technology transfer from the National Science Foundation to the state of Hawai‘i.

Goal 6: Continue to expand and ensure certification courses remain current, offering the latest version of IT certification and academy programs
By continuing to implement new certification programs and staying current with existing certification courses and programs, PCATT will meet business and industry employer needs.
Goal 7: **Complete VMware server training room**
Based on employer response and initial demand for training, PCATT management believes that the investment in a server training room for VMware will be a strong investment that positions PCATT ahead of its competition.

This server room project will also support the Honolulu CC campus as it will allow ITC to load share network services as the campus migrates to a VMware. This is consistent with the University of Hawai‘i Strategic initiative to repair, replace, or renovate existing IT infrastructure.

**Goal 8: Expand on technology transfer to neighbor islands and rural areas of Hawai‘i.**
PCATT will continue to seek opportunities for neighbor island Directors of Continuing Education and Training to participate in national advanced technology training initiatives. This will allow the Directors to expand their understanding of the application of advanced technology and help facilitate technology transfer to rural areas of Hawai‘i.