Proposal to Host HPDC 2018 in Phoenix, Arizona

Prof. Ming Zhao
School of Computing, Informatics, and Decision Systems Engineering
Arizona State University, Tempe, AZ, USA
Email: mingzhao@asu.edu, Web: http://visa.lab.asu.edu
Arizona State University is pleased to present this proposal to host HPDC 2018 in Phoenix, Arizona. This document provides various details about the organizing committee, the host institutions, and the city of Phoenix. We believe that our strong organizing committee, excellent experience with local arrangements for premier events, and outstanding location, should make this proposal attractive. We anticipate a highly successful conference with high attendance, both from the regular HPDC international community as well as local researchers in the Arizona area and the rest of the U.S.

Host Institution
The conference is proposed to be hosted by Arizona State University (ASU), as the local organizing institute. ASU is a public metropolitan research university on five campuses across the Phoenix, Arizona, metropolitan area, and four regional learning centers throughout Arizona. The 2016 university ratings by U.S. News & World Report rank ASU No. 1 among the Most Innovative Schools in America for the second year in a row.

ASU is the largest public university by enrollment in the U.S. It had approximately 82,060 students enrolled in 2014, including 66,309 undergraduate and 15,751 graduate students. ASU’s charter, approved by the board of regents in 2014, is based on the “New American University” model created by ASU President Crow. It defines ASU as “a comprehensive public research university, measured not by whom it excludes, but rather by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.”

ASU is classified as a research university with very high research activity (RU/VH) by the Carnegie Classification of Institutions of Higher Education. Since 2005, ASU has been ranked among the top research universities, public and private, in the U.S. based on research output, innovation, development, research expenditures, number of awarded patents and awarded research grant proposals. The Center for Measuring University Performance ranks ASU 31st among top U.S. public research universities. ASU was classified as a Research I institute in 1994, making it one of the nation’s newest major research universities (public or private).

General Chair
Prof. Ming Zhao
Prof. Zhao is an associate professor of the ASU School of Computing, Informatics, and Decision Systems Engineering, where he directs the research laboratory for Virtualized Infrastructures, Systems, and Applications (VISA, http://visa.lab.asu.edu). His research is in the areas of experimental computer systems, including distributed/cloud, big-data, and high-performance computing systems. He is also interested in the interdisciplinary studies that bridge computer systems research with other domains. His work has been funded by the National Science Foundation (NSF), Department of Homeland Security, Department of Defense, Department of Energy, and industry companies, and his research outcomes have been adopted by several production systems in industry. Dr. Zhao has received the NSF Faculty...
Early Career Development (CAREER) award, the Air Force Summer Faculty Fellowship, the VMware Faculty Award, and the Best Paper Award of the IEEE International Conference on Autonomic Computing. He received his bachelor’s and master’s degrees from Tsinghua University, and his PhD from the University of Florida.

Prof. Zhao has served on more than 50 technical program committees of various premier conferences in his field, including HPDC, FAST, BIGDATA, CLOUD, CCGrid, HPCC, ICCCN, ICDCS, ICPADS, NPC, PDSW, and VTDC. He has also served in different roles on the organizing committees of several conferences, including the Travel Grant Chair of HPDC, the local arrangement chair for MASCOTS and S-Cube, the Finance Chair of ICAC, the Publicity Chair of ICAC, CloudComp, IGCC, SNAPI, and VTDC, the Poster/Demo Chair of ATC and SEKE, and the Doctoral Symposium Chair of SAINT.

About Phoenix
Arizona is home to the Grand Canyon as well as a variety of terrain, climates and cultures. It has marvelous landscape like red canyons, cactus deserts, and mountains as well as man-made attractions like engineering marvels, esteemed museums, vibrant cities, and historic settlements.

Phoenix is the capital and most populous city of the state of Arizona, and the anchor of the Phoenix metropolitan area, also known as the Valley of the Sun. The metropolitan area is the 12th largest by population in the United States, with approximately 4.3 million people as of 2010. In addition, Phoenix is the seat of Maricopa County and, at 517.9 square miles (1,341 km2), it is the largest city in the state, more than twice the size of Tucson and one of the largest cities in US.

Tempe is the location of Arizona State University. Tempe is located in the East Valley section of metropolitan Phoenix; it is bordered by Phoenix and Guadalupe on the west, Scottsdale on the north, Chandler on the south, and Mesa on the east.

Climate
Phoenix has a subtropical desert climate, typical of the Sonoran Desert. Phoenix has long, hot summers and short, mild to warm winters. The city is located within the sunniest region in the world. Measuring 3,872 hours of bright sunshine annually, Phoenix receives the most sunshine of any major city on Earth.

The conference is proposed to be held in May. In most years, Phoenix averages a daily maximum temperature for May that is between 92 and 98 degrees Fahrenheit (33 to 37 degrees Celsius). The minimum temperature usually falls between 66 and 72 °F (19 to 22 °C). Most years, Phoenix gets no precipitation at all in May. About one in four years receives just 0.1 inches (3 mm) or so of rain. Typically on 21 days this month the sky is mainly clear, with at most 30 percent cloud cover.

Local Attractions
The greater Phoenix area offers visitors an array of impressive cultural attractions. It is known for high-end spa resorts, Jack Nicklaus-designed golf courses and vibrant nightclubs. The city also offers access to numerous outdoor endeavors including rock climbing, hot-air ballooning, desert jeep tours and more.
Family-friendly attractions, first-rate shopping, dining and entertainment, and spectacular recreational activities make Phoenix a must-visit destination.

Phoenix also serves as a central point to many of the sights around the state of Arizona, such as the Grand Canyon, Lake Havasu (where the London Bridge is located), Meteor Crater, the Painted Desert, the Petrified Forest, Tombstone, Kartchner Caverns, Sedona, and Lowell Observatory in Flagstaff.

**Performing arts**
The city has numerous performing arts venues, most of which are located in and around downtown Phoenix or Scottsdale. The Phoenix Symphony Hall is home to the Phoenix Symphony Orchestra, the Arizona Opera and Ballet Arizona. The Arizona Opera company also has intimate performances at its new Arizona Opera Center, which opened in March 2013. Another venue is the Orpheum Theatre, which is home to the Phoenix Opera. Ballet Arizona, in addition to the Symphony Hall, has performances at the Orpheum Theatre as well as at the Dorrance Theater. Concerts also regularly make stops in the area. The largest downtown performing art venue is the Herberger Theater Center, which houses three performance spaces and is home to two resident companies, the Arizona Theatre Company and the Centre Dance Ensemble.

**Museums**
Dozens of museums exist throughout the valley. They include the Phoenix Art Museum, Arizona Capitol Museum, Arizona Military Museum, Hall of Flame Firefighting Museum, the Pueblo Grande Museum and Cultural Park, Children's Museum of Phoenix, Arizona Science Center, and the Heard Museum. In 2010 the Musical Instrument Museum opened their doors, featuring the biggest musical instrument collection in the world.

**Architecture**
Phoenix is the home of a unique architectural tradition and community. Frank Lloyd Wright moved to Phoenix in 1937 and built his winter home, Taliesin West, and the main campus for The Frank Lloyd Wright School of Architecture. Over the years, Phoenix has attracted notable architects who have made it their home and have grown successful practices. These architectural studios embrace the desert climate, and are unconventional in their approach to the practice of design. They include the Paolo Soleri (who created Arcosanti), Al Beadle, Will Bruder, Wendell Burnette, and Blank Studio architectural design studios. Another major force in architectural landscape of the city was Ralph Haver whose firm, Haver & Nunn, designed commercial, industrial and residential structures throughout the valley. Of particular note was his trademark, “Haver Home”, which were affordable contemporary-style tract houses.

**Parks and Recreation**
Phoenix is home to a large number of parks and recreation areas. The city of Phoenix includes national parks, county (Maricopa County) parks, and city parks. Tonto National Forest forms part of the northeast boundary of the city, while the county has the largest park system in the country. The city park system
was established to preserve the desert landscape in areas that would otherwise have succumbed to development and includes South Mountain Park, the world’s largest municipal park with 16,500 acres (67 km²). The city park system has 182 parks which contain over 41,900 acres, making it the largest municipal park system in the country. The park system has facilities for hiking, camping, swimming, horseback riding, cycling, and climbing. Some of the other notable parks in the system are Camelback Mountain, Encanto Park (another large urban park), and Sunnyslope Mountain, also known as “S” Mountain. Papago Park in east Phoenix is home to both the Desert Botanical Garden and the Phoenix Zoo, in addition to several golf courses and the Hole-in-the-Rock geological formation. The Desert Botanical Garden, which opened in 1939, is one of the few public gardens in the country dedicated to desert plants, and displays desert plant life from all over the world. The Phoenix Zoo is the largest privately owned non-profit zoo in the United States and is internationally known for its programs devoted to saving endangered species.

**Transportation**

Phoenix is served by Phoenix Sky Harbor International Airport (IATA: PHX, ICAO: KPHX), one of the ten busiest airports in the United States, serving over 110,000 people on over 1000 flights per day. The airport is centrally located in the metro area, only 3 miles (5 km) southeast of downtown Phoenix and 2 miles (3.2 km) northwest of Tempe. The airport provides extensive air service to points throughout North America and to Europe and Asia, including non-stop flights to more than 100 cities. The airport serves as the sixth-largest hub for American Airlines with 299 daily departures to nearly 86 destinations in 4 countries. Sky Harbor also serves as one of the largest focus cities for Southwest Airlines with 179 daily departures to 50 cities.

Valley Metro operates bus routes and Valley Metro Rail system that serves Downtown Tempe and ASU, as well as service to Phoenix. The City of Tempe operates a free neighborhood circulator service called Orbit involving five free shuttle routes near ASU that operate on a regular basis seven days a week.

**Possible Conference Venues**

While several possibilities for conference venues exist within the Phoenix area, we provide here a few examples that balance the cost of the conference to the facilities and amenities. Each of these venues has already hosted other IEEE/ACM conferences of the same scale as HPDC.

**Arizona State University**

ASU is only a short 10 minutes’ drive from the Phoenix Sky Harbor Airport. There are many hotels near the ASU campus, conveniently located in the vicinity of the conference venue, including Courtyard Tempe Downtown, Residence Inn by Marriott Tempe Downtown/University, AC Hotel by Marriott Phoenix Tempe/Downtown, Tempe Mission Palms, Red Lion Inn & Suites Phoenix – Tempe, MOXY Phoenix Tempe/ASU Area, Holiday Inn Express and Suites Phoenix Tempe – University, and Aloft Tempe.

The 2015 IEEE International Conference on Cloud Engineering was heled at ASU: (http://conferences.computer.org/IC2E/2015/)
Phoenix Convention Center
The Phoenix Convention Center is located near downtown Phoenix. The center is within walking distance of major convention hotels, shopping, entertainment, sports and theatre venues, has its own dedicated stop on the METRO Light Rail line, and is just fifteen minutes from Sky Harbor International Airport. It has many hotels nearby, including Hyatt Regency Phoenix, Renaissance Phoenix Downtown, Sheraton Phoenix Downtown, Hotel Palomar Phoenix, and The Westin Phoenix Downtown.


The Scottsdale Plaza Resort
Set on 40 acres, this upscale hotel and conference center is 1.7 miles from Camelback Golf Club and 9.2 miles from Phoenix Sky Harbor International Airport. Southwestern- and Mediterranean-style rooms feature free Wi-Fi, coffeemakers and flat-screen TVs. Suites include wet bars, fireplaces, patios, separate living rooms, whirlpool tubs and/or private swimming pools. Amenities include 2 restaurants, a lounge and a poolside cafe, along with 5 outdoor pools, a fitness center, lighted tennis courts and a spa. There’s also a fully equipped business center and over 40,000 sq ft of flexible conference space.

The 2014 ACM Conference on Computer and Communications Security 2014 was held here: https://www.sigsac.org/ccs/CCS2014/