



Title: **The Challenges and Rewards of Petascale Clusters**

Speaker: **Dr. Mark Seager, Lawrence Livermore National Laboratory**

Date: April 30, 2009

Time: Presentation at 6:30 PM

Place: Chevron, 6101 Bollinger Canyon Road, San Ramon, CA 94583
Building: Bishop Ranch 1-X, Conference room# 1220-1240, auditorium

RSVP All attendees must RSVP by 4/27 to Bill DeHope
email: dehope1@llnl.gov

Cost: none

Meeting Description:

Building, integrating and using petascale systems have many challenges including system power and cooling, system stability, scalability, simulation environment and the development of petascale applications. In this talk, we discuss these challenges and provide some approaches to addressing these challenges from ASC Sequoia. In addition, we discuss some recent scientific results from petascale systems that make the whole effort worthwhile.

About the Speaker:

Dr. Mark Seager received his B.S. Degree in Mathematics and Astrophysics at the University of New Mexico at Albuquerque in 1979 and received his PhD in Numerical Analysis from the University of Texas at Austin in 1984. Dr. Seager started working at Lawrence Livermore National Laboratory in 1983 and has been working in the field of parallel processing ever since. He manages the Platforms Program for the Advanced Simulation and Computing (ASC) Program at LLNL and has managed multiple vendor partnerships to successfully procure, deploy and integrate architectures such as ASCI Blue Pacific (3.9 TF/s in 1998), ASCI White (12.3 TF/s in 2000) and Purple (100TF/s in 2005) and BlueGene/L (360 TF/s in 2005). In addition, Dr. Seager developed the LLNL Linux strategy and helped deploy multiple generations of leading edge clusters (MCR at 11.3 TF/s in 2002 and Thunder at 23 TF/s in 2004) In 2006 when faced with the challenge of deploying multiple Linux clusters of various sizes per year while at the same time reducing total cost of ownership by 50%, Dr. Seager developed the Scalable Unit concept. With the Peloton and TLCC07 procurement activities, this strategy delivered over 20 clusters in excess of 600 TF/s aggregate from 35 scalable units to three USA National Laboratories. Dr. Seager recently led the ASC Sequoia procurement for a 20 PF/s system to be delivered in 2011. Dr. Seager is now focused on the challenges of petascale systems, simulation environments and applications development strategies.

[See map =====>](#)

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Bishop Ranch 1



Visitor Safety Information and Map

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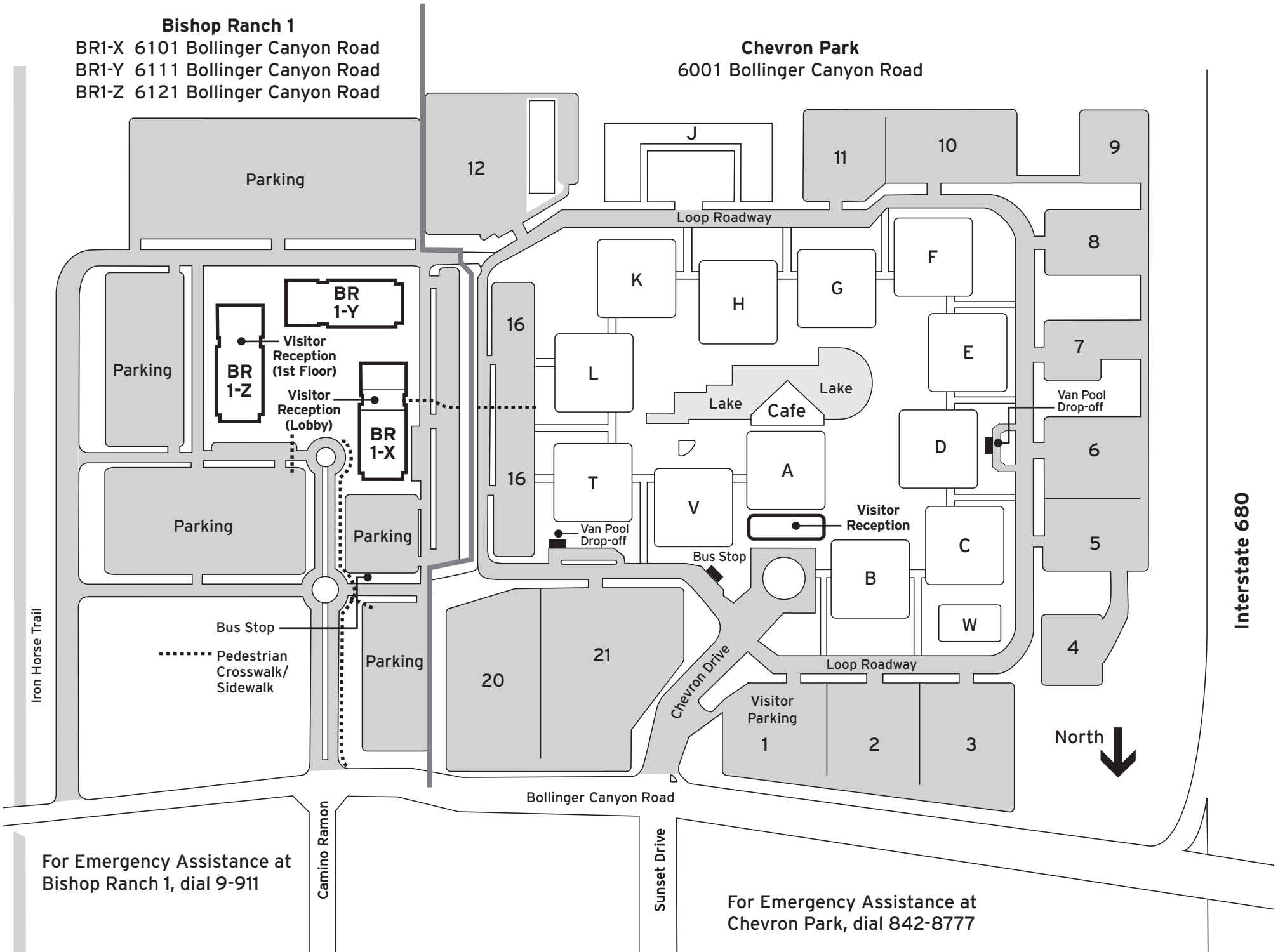


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