In November 2005, the ITPB identified Next Generation Wireless as one of the most urgent institutional strategic areas to address in the 2005-06 academic year and beyond. Specific next generation wireless questions or issues of interest mentioned were:

- Will it be ubiquitous across campus like cell phones?
- Will it replace the need for most wired connections?
- How will new wireless technologies that want to be centrally managed and run, coexist and interface with existing departmentally run wireless networks?
- Will it solve the undergraduate interoperability problem?
- Will it provide for QoS and VoIP?
- Anticipating generational changes and seeking both efficiency and low costs
- Expanding wireless capacities

At its February 13, 2006 meeting, the ITPB recommended formation of a workgroup to explore strategic directions for UCLA in wireless in the next 5-10 years and prepare background material for a future ITPB meeting focused on Wireless. The workgroup: Alfonso Cardenas, Dana Cuff (absent), Jim Davis, Bill Jepson, Alan Robinson, Mike Schilling and guest Rajit Gadh met on April 5, 2006 to examine broad level capabilities of wireless technologies. They reviewed the inventory of current campus projects related to wireless and discussed some emerging trends. The next workgroup meeting will focus on selecting priority areas to recommend to the ITPB.

**Wireless Projects**

- **UCLA Wireless**
  Wireless at UCLA is managed under a campus Wireless Standards Board and Campus Wireless Registry and uses a federated model architecture. Major service providers are Communications Technology Services (CTS) and Medical Center Computing Services (MCCS) and hundreds of smaller groups. CTS supported wireless activity currently includes over 360 access points and covers over 40 buildings and over 150 floors. There are over 1200 daily connections. The next proposed phase of wireless coverage is Wi-Fi public overlay (a possible fee-based service).

- **Soft Phones**
  CTS is currently experimenting with this.

- **Radio Frequency Identification (RFID) Research Projects**
Using RFID technology, a chip (with or without a battery) can be attached to almost anything for tracking purposes. Some RFID research projects in Dr. Rajit Gadh’s Wireless Media Lab include:

- Managing supply chain, inventory, assets within the enterprise (deterrent to laptop theft)
- Status tracking of medical specimens
- Medication tracking to reduce adverse drug events
- Tagging medical devices that send medication into a patient

**Trends/Drivers in Use of Wireless**

- **Medical Enterprise**
  - Access to medical literature
  - Patient education
  - Transition to Tablet PCs - currently using Smart Forms (paper form is scanned)
  - Common Wireless Access Solution (CWAS)
- **Academic**
  - Instant feedback surveys in classrooms
- **Features**
  - Pushing schedules, dorm menus, etc.
- **Convergence**
  - PDAs, phones
  - Laptops, tablet PCs
  - Videoconferencing on cell phones
- **Community**
  - Westwood businesses
  - Fraternity/Sorority houses
- **Sensor networks**
- **Wi-Max**
- **3G**
- **VoIP**
- **RFID**
  - Active (tag with battery, using existing Wi-Fi infrastructure) RFID technology for asset tracking enables real time location of assets
  - Enables robust ID for individual (implications for sign-ons for multiple systems)
  - Has read/write memory; can create moving dynamic device
  - Capable of peer-to-peer communication (each node can talk to adjacent node)
- **Emergency Response**