

Panel: What do you want?

**“What new feature/capability
would you like to have in a
next-gen Stargate device?”**

Trevor Pering: Built-in Taser!

Safe & effective defense:

- Easy to use
- No aftereffects or contamination
- 15-foot or 4.5 meter range
- Contact stun capability
- Legal to carry



- **Convenient mobile form-factor**
- **Self-protecting sensor-networks**
- **Addresses security concerns for data
stored on Personal Servers!**

Kent Lyons: VGA Video Output

- Could the Stargate become a truly personal computer?
- Yes, with VGA output



Fredric Newberg: Power Scaling

- Low-power operation for many wireless sensing applications is critical
- 32-bit processors are power efficient
 - Efficiency is currently hard to leverage in many applications
- Need hardware and software support to allow for scalable power consumption
 - Wider range for core clock frequency
 - Rapid transition between power states
 - Software framework to simplify use of hardware power scaling features

Ralph Kling: Gateway/Mote Integration

- Use the power of the Stargate!
- Example: Local processing of vibration data (FFT) consumes only 1/80 the power of transmitting the raw data
 - For a single hop!
- Need way to seamlessly immerse gateways in mote networks to use scalable processing
 - Also applies to radio links (e.g., 802.11)

Steve Richards: Robotics Input Output

- Constraint Balance in I/O considerations
- Connectors Suck
- Min for Max Planning

