

Cyberspace – What, Why and How

Strategic implications and use of Cyberspace

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What is Cyberspace?

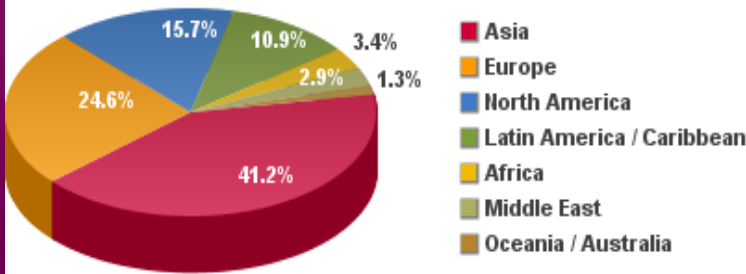
A global **domain** within the information environment consisting of the interdependent network of information technology infrastructures, including the internet, telecommunications networks, computer systems, and embedded processors and controllers.

Nature of cyberspace

- Cyber seen as a **domain** along with Land/Sea/Air
- Technology as a driver for:
 - Productivity
 - Communication
 - Economic Growth
- Influence of Social Networking
 - Reaction against government (Arab Spring/London Riots)
- Cyberspace is global and unrestricted
- Low entry level cost

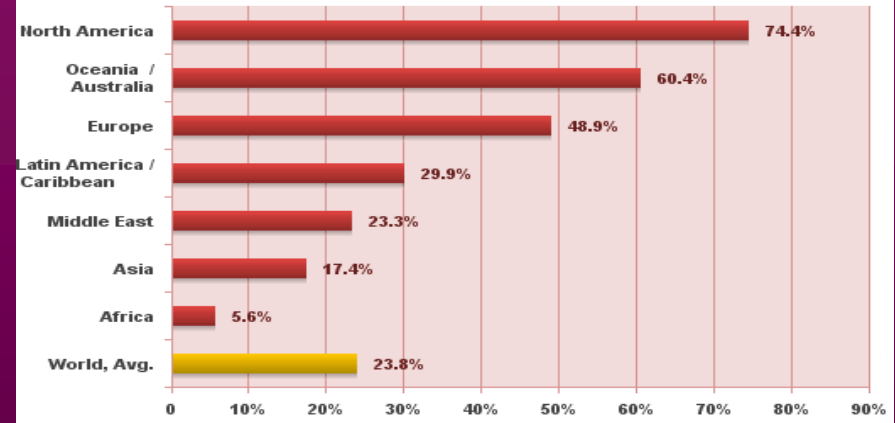
The Internet - People

World Internet Users by World Regions

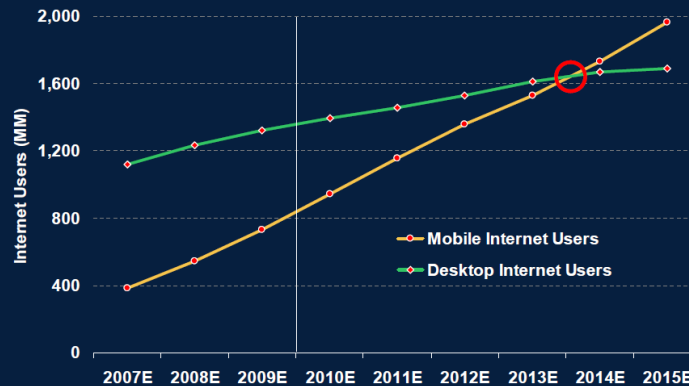


1.6 Billion Users

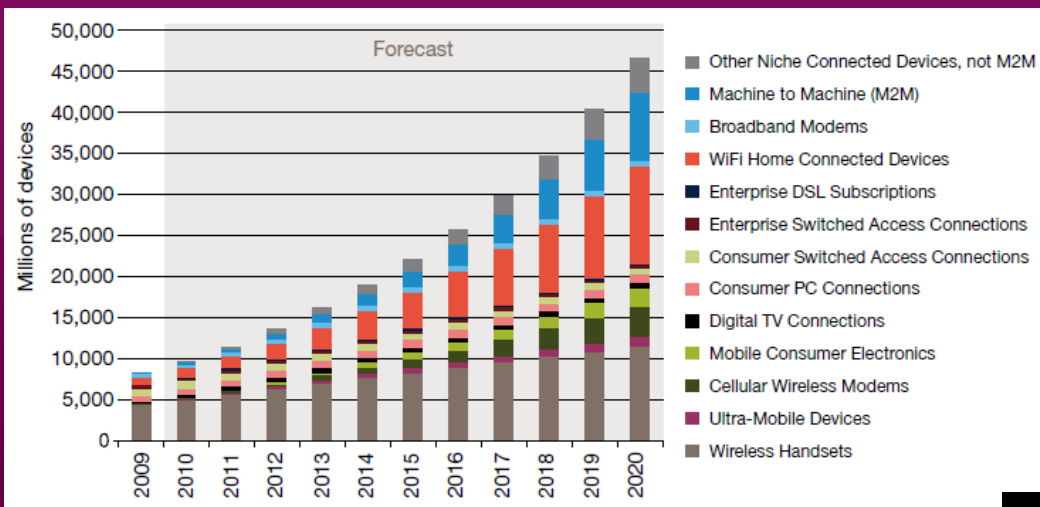
World Internet Penetration Rates by Geographic Regions



Global Mobile vs. Desktop Internet User Projection, 2007 – 2015E



The Internet - Things



More devices than people

Machine to Machine
Wifi home connected devices

Ubiquitous and pervasive computing

Location and context aware

Process control automated
Instrumentation of key systems
Smart metering initiatives
Remote diagnostics and maintenance
Opaque control algorithms
Automated resource management/allocation



Why is Cyberspace Important?

Opportunities

- **Transparency**
- **Faster comms/processes**
- **Economic prosperity**
- **Fosters innovation**
- **Freedom of expression**

Threats

- **Dependency**
- **Unbounded**
- **Easy Access**
 - **Cost**
 - **Technology**
- **Graduated spectrum of threat actors**
- **Deniability**

Questions?