# inCode 2010 Top Ten Predictions

- **Summary of Top Ten**

**November 10, 2010**

# inCode Top 10 Telecom Predictions for 2010

1

Wireless Operators Push Netbooks, but They Prove A Mixed Bag

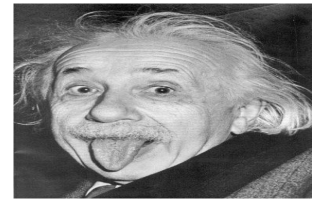
2

The FCC: Stuck in Neutral with the Net

3

Wireless Operators Play "Whack-a-Mole" with Data Issues

4

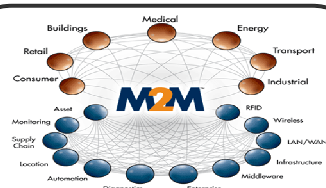


When all Devices are Smart, What Becomes Genius?

5

Wireless Data Pricing Looks More Like the Airlines'

6




M2M Leads Operators into New Acquisition Area

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Looking at Clouds from Both Sides Now

8

A Device Operating System Bites the Dust

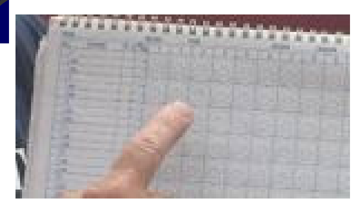
9

MVNOs Get New Lease on Life in a Very Different Form

10


Game Console Video Kills the PC Star: at Least for Internet Video

Bonus



You Can't Track the Players without a Scorecard

# 2010 Top Ten Review

1

**Wireless Operators Push Netbooks, but They Prove A Mixed Bag**

- Netbooks are increasingly being embraced by carriers as a key part of their device portfolios
- In the US netbooks will be additive rather than replacing cellphone or laptop thus boosting gross additions
- However, carriers will face: (1) more stress on their networks and (2) customers will demand laptop type support and (3) increasing demand to make the netbook seamlessly synch with other devices

2

**The FCC: Stuck in Neutral with the Net**

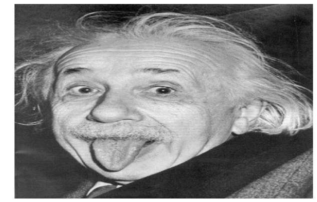
- Debate on Net Neutrality bogs down decision making for many months
- Already fears of rules have had a chilling effect on auctions and broadband stimulus.
- Ultimately FCC will find compromise between innovation and reliability
- Will allow limitations on TYPES of traffic that pose hazards but is not overtly directed at a particular application or service provider
- Operators will need to find ways of gaining traction vs over the top

3

**Wireless Operators Play "Whack-a-Mole" with Data Issues**

- RF Capacity and Throughput has traditionally been the primary scarce resource
- HSPA, WiMax, and eventually LTE networks will dramatically add to wireless throughput
- However, new bottlenecks rise to the forefront including (1) Backhaul capacity, (2) device battery line and (3) in-building coverage
- Much attention and capital spend will go into these areas during 2010

4



**When all Devices are Smart, What Becomes Genius?**

- Historically, smartphones were only high end devices
- Broad adoption of these models and decreasing prices are bringing smartphone features down-market
- Mobile phones above entry level morph into computing platforms so smartphones as a distinction between tiers ceases to exist by end of 2010
- New levels of distinction will begin to emerge at the high end as powerful internet devices

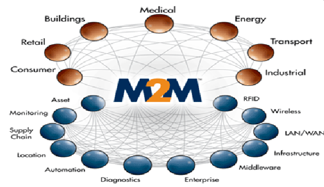
# 2010 Top Ten Review

## 5

**Wireless Data Pricing Looks More Like the Airlines'**

- Wireless shows it has more in common with Airlines than just both involving "Carriers"
- History has shown it is hard to move back from low price/unlimited plans once offered
- Basic rates will remain low but charges will begin to be applied for optional capabilities
- Data networks will see pricing more based on quality of service…more guaranteed quality will require higher price

## 6




**M2M Leads Operators into New Acquisition Area**

- Machine to Machine applications have generated major interest during 2009
- ATT and Jasper partnership and Verizon/Qualcomm joint venture
- M2M applications very attractive with low churn and low CPGA
- Unique competencies required to fully support M2M and enterprises that don't exist in most operators
- Expect one operator to make a major acquisition in this space to jumpstart capabilities

## 7

**Looking at Clouds from Both Sides Now**

- Cloud computing becomes major carrier applications strategy
- For Carriers, cloud computing places increased value and "stickiness" in the network
- Challenges of response time and coverage will impact utility
- Network security and vulnerability also become prominent
- Device suppliers will not want to be relegated to "dumb terminal" status setting up a classic technology battle

## 8

**A Device Operating System Bites the Dust**

- Proliferation of operating systems increased in 2009 but not enough devices and revenue to support all
- "Open" will get much focus and attention lending support to Google and Android
- Expect one major OS platform will not make it through 2010
- The industry as typical will drive toward greater amounts of standardization leading to continued consolidation in the OS space

# 2010 Top Ten Review

9

**MVNOs Get New Lease on Life in a Very Different Form**

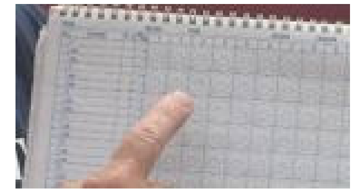
- MVNOs particularly in North America have had only marginal success
- Those successful in specific niches are acquired by MNOs, the others fail
- Traditional business model works against MVNO
- New business model will place less emphasis on competing directly with carriers and placing more emphasis on deliver total solutions with wireless part of the package: eg KIndle

10


**Game Console Video Kills the PC Star: at Least for Internet Video**

- To date, internet video has been mostly consumed directly on the PC as bite-size clips
- Industry will see the amount of internet video viewed on TV to double in 2010
- The gaming console will be primary enabler of this with consoles being the primary gateway accounting for almost half of usage, vaulting it over the PC
- Long term however interconnected TVs and Set-top boxes are poised to take lead role but this is after 2010

**BONUS**



**You Can't Track the Players with a Scorecard**

- Traditional Wireless operational metrics are fast becoming obsolete as a way of managing the business
- Penetration: What does it really tell when numbers get to 200%, 300%, and more
- ARPU: Multiple services and devices per user each with differing cost profiles
- Churn: Increase in "disposable" or "substitution" devices.
- New metrics will be needed that focus on the end user as a whole entity.

Business Insight, Technology Foresight