

# Network Improvements via Femtocells

## CDG NARC 2008 Enhancement Panel Session

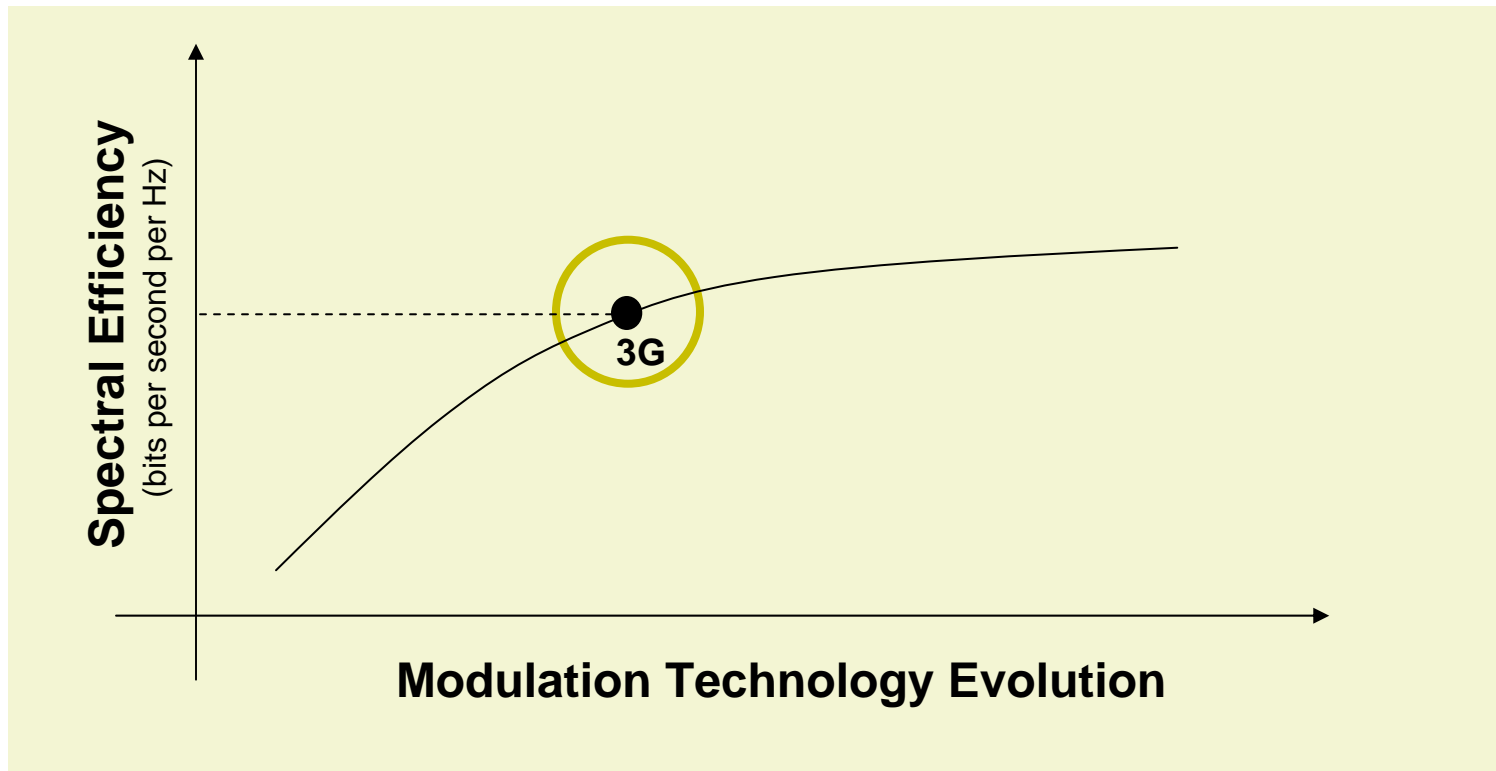
**David Nowicki**

**November 20, 2008**

**Check out [www.femtohub.com](http://www.femtohub.com)**

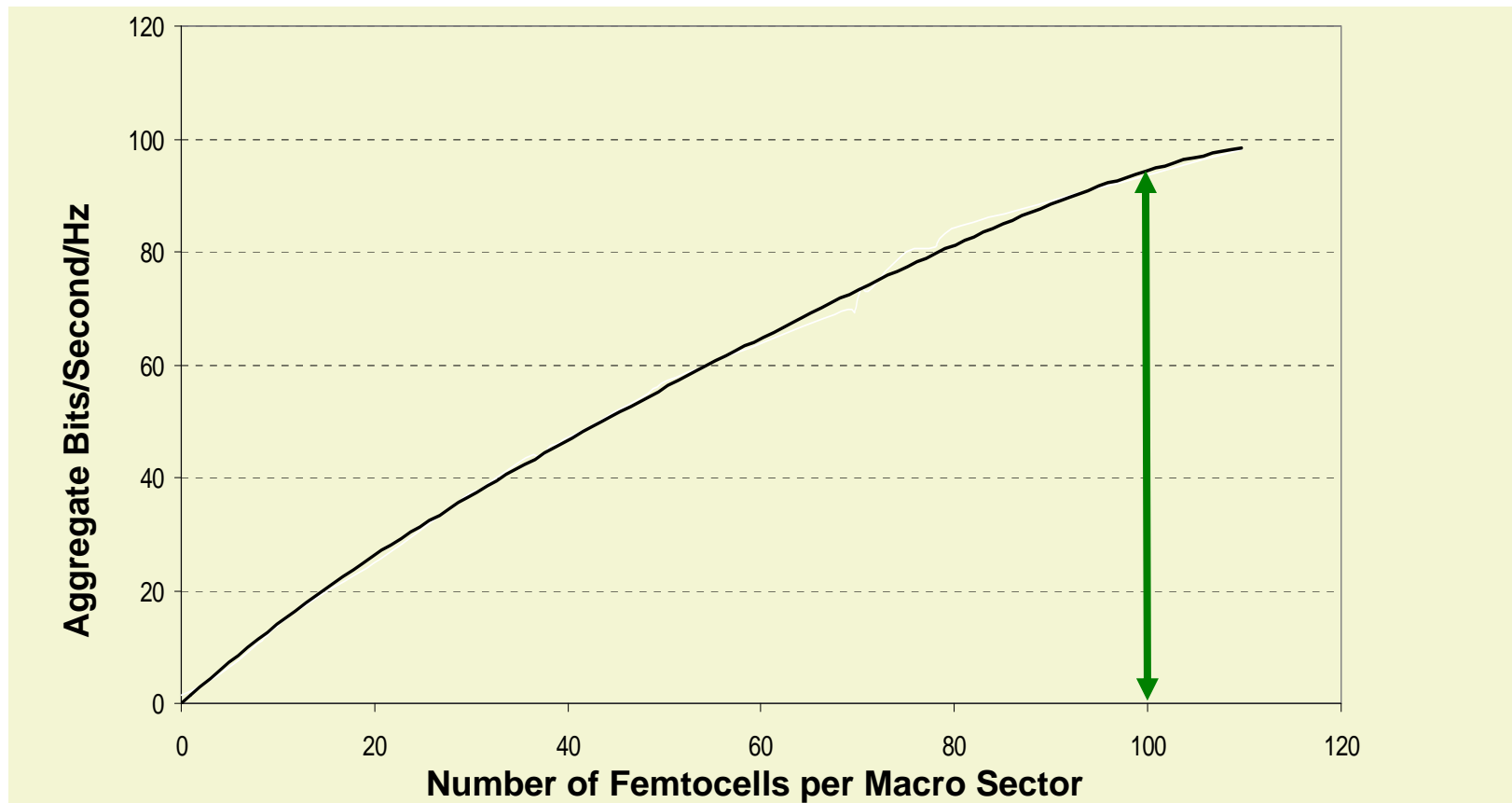


# Air Interface Evolution Delivers Incremental Gain



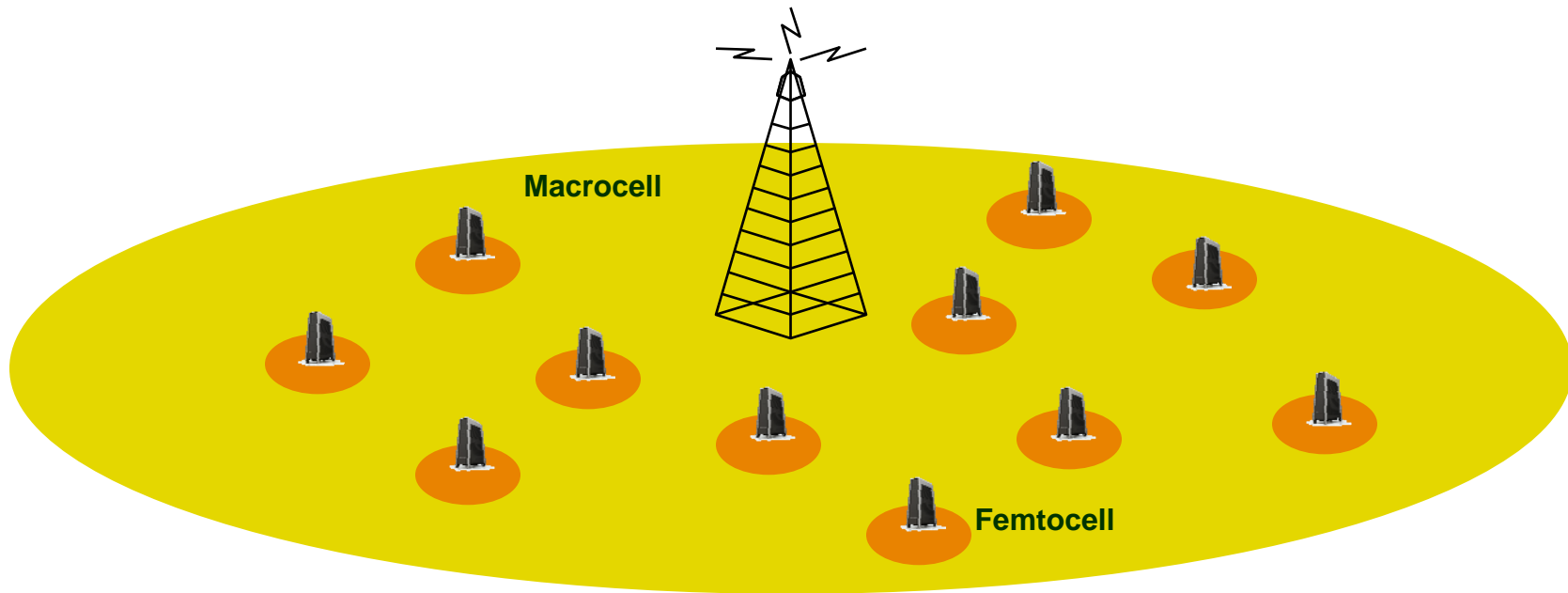
**Next Generation of Air Interfaces (LTE/WiMax) Will Deliver Modest Gains in Spectral Efficiency**

# For Dramatic Gains, We Need to Look Elsewhere



**Dramatic Gains in Spectral Efficiency Requires New Radio Network Architectures Such As Femtocells**

# Femtocell Drivers

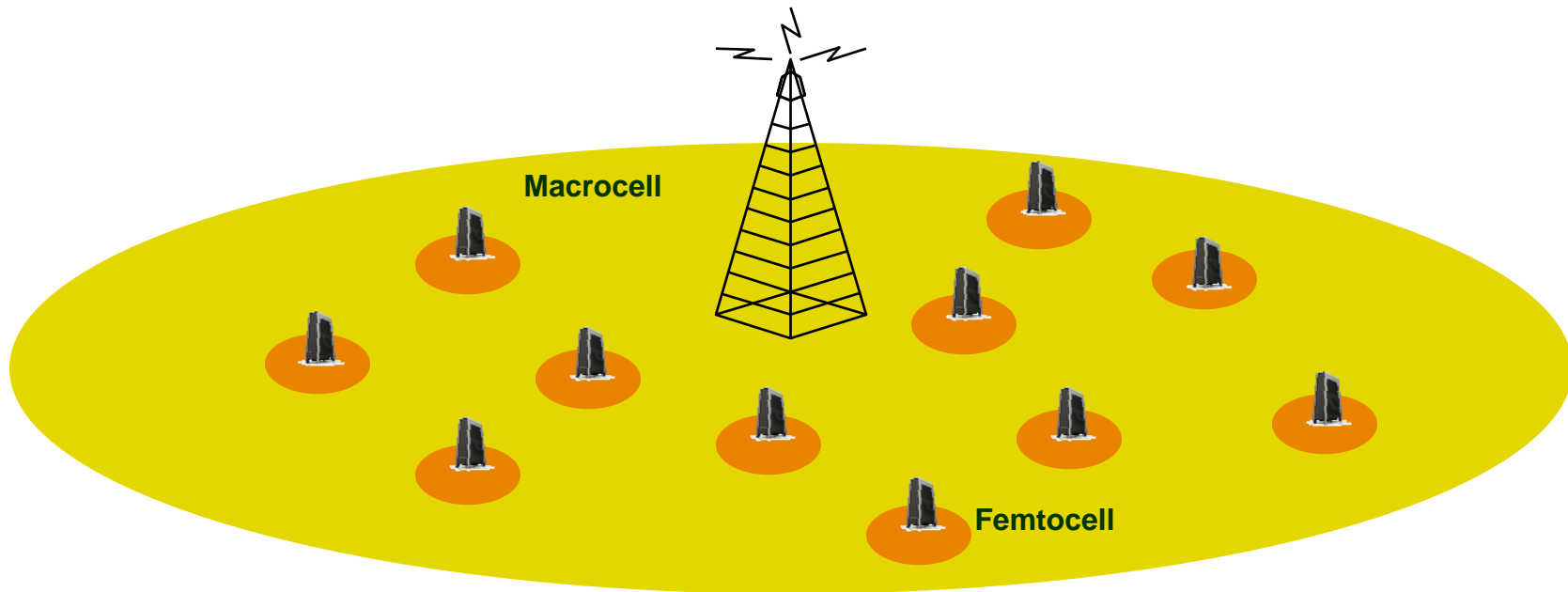


- New in-building coverage/capacity
- Improved user experience
- Less load on the 3G macro network
- No new cell site or backhaul cost
- Enables new services and ARPU

**Without requiring  
any new handsets**

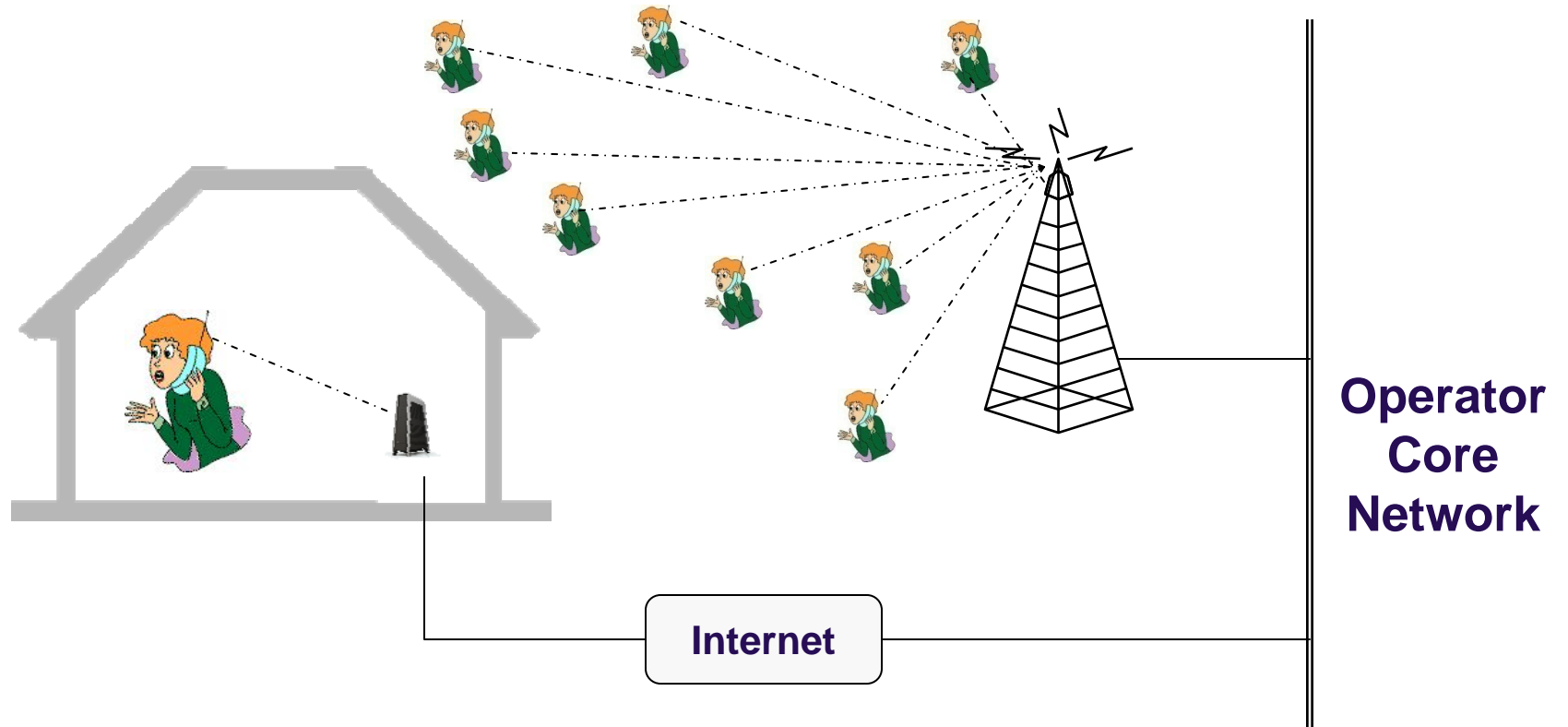
# Unlimited Capacity at Dramatically Reduced Cost

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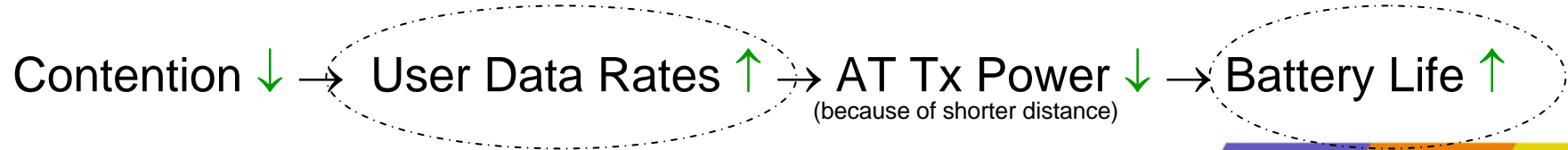


100 femtocells @ \$200 each deliver 100 macro sectors worth of data capacity to in-home users at a total cost of \$20K  
— Without any new cell site or backhaul costs —

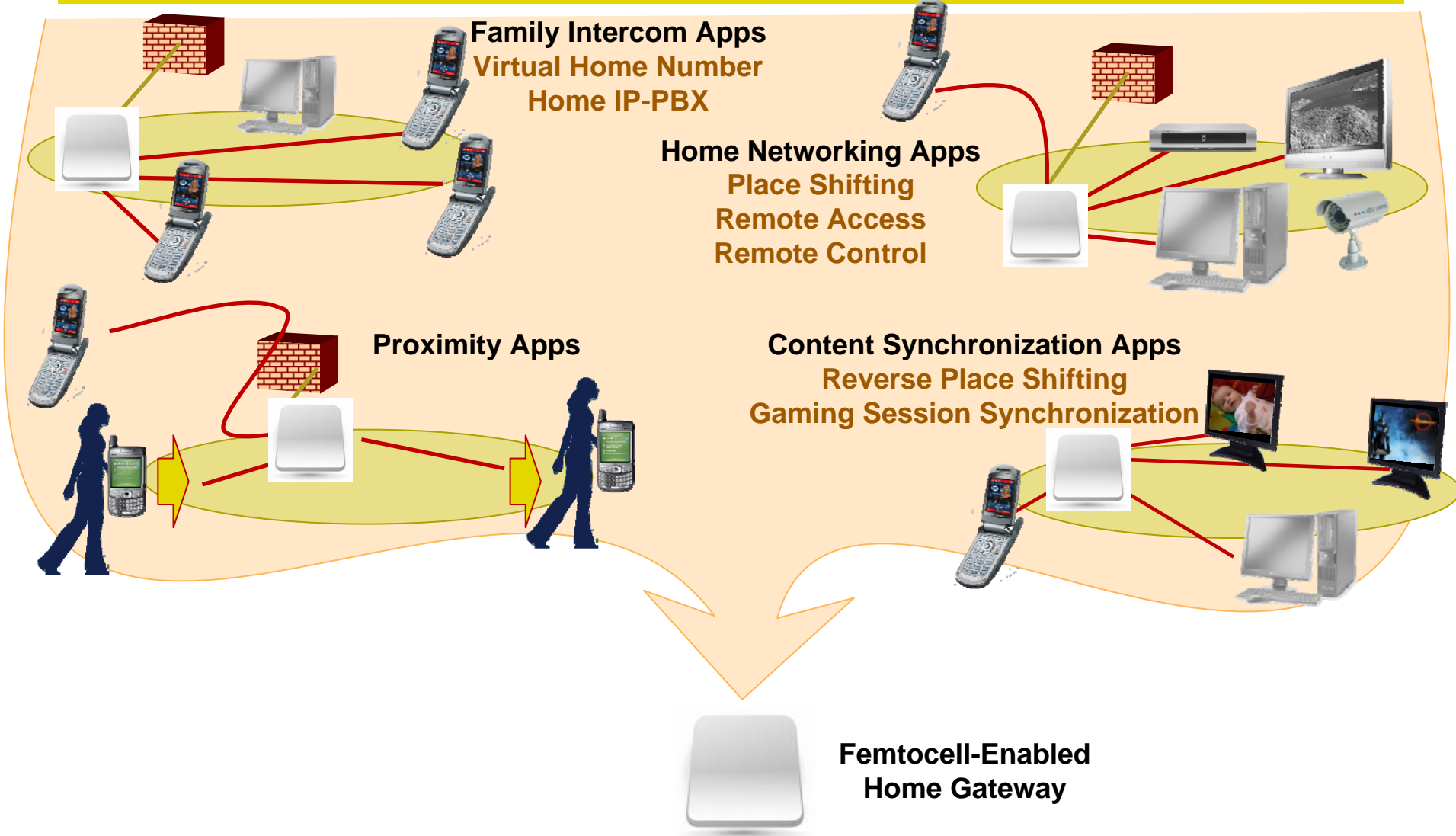
# Improved User Experience Due To Fewer Users Per Cell



~4 users per femto sector vs. ~100 in macro networks  
A 25x improvement in user experience



# Femtozone Applications & Services



# Femtocell Customer Proposition

