

Extending the 3G Network Indoors

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Femtocell Business Proposition

Three Drivers

- *Offload macro network; reduce cap-ex and op-ex*
- *Create new revenue streams (Deliver services from multiple industries to the home and office)*
- *Reduce churn with excellent coverage & services*

Operators Deliver Coverage/Capacity by Adding Macro Cells

• Today's Mobile Service Model

- Per minute charge for use of mobile voice services
- Flat rate or per megabyte charge for mobile data services

• Impact of Traffic Growth on Wireless Network

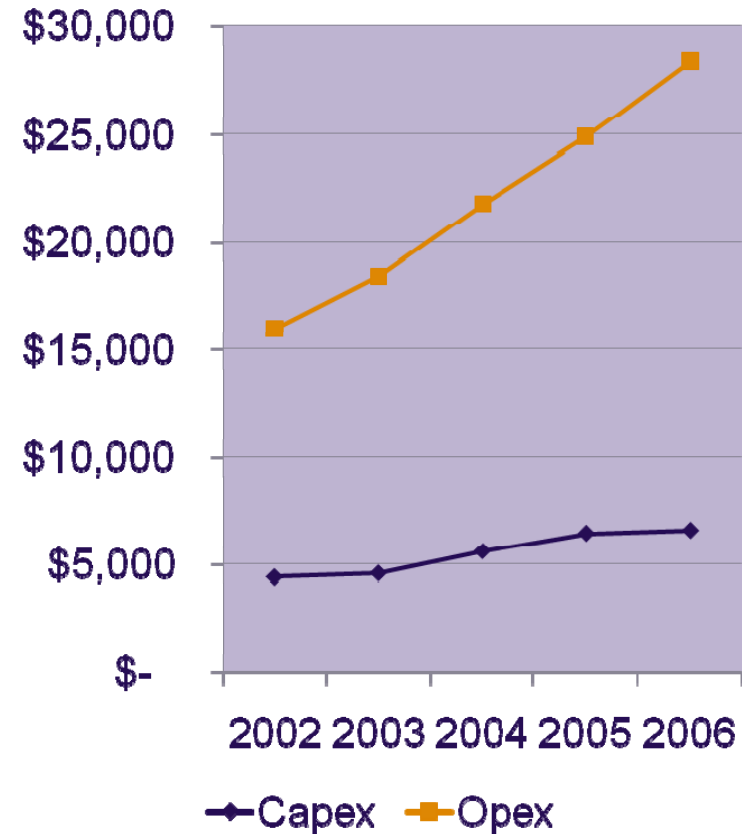
- Increase in macro cell capex
- Even greater increase in macro cell opex

• Formula Works as long as

- Subscribers or ARPU increase

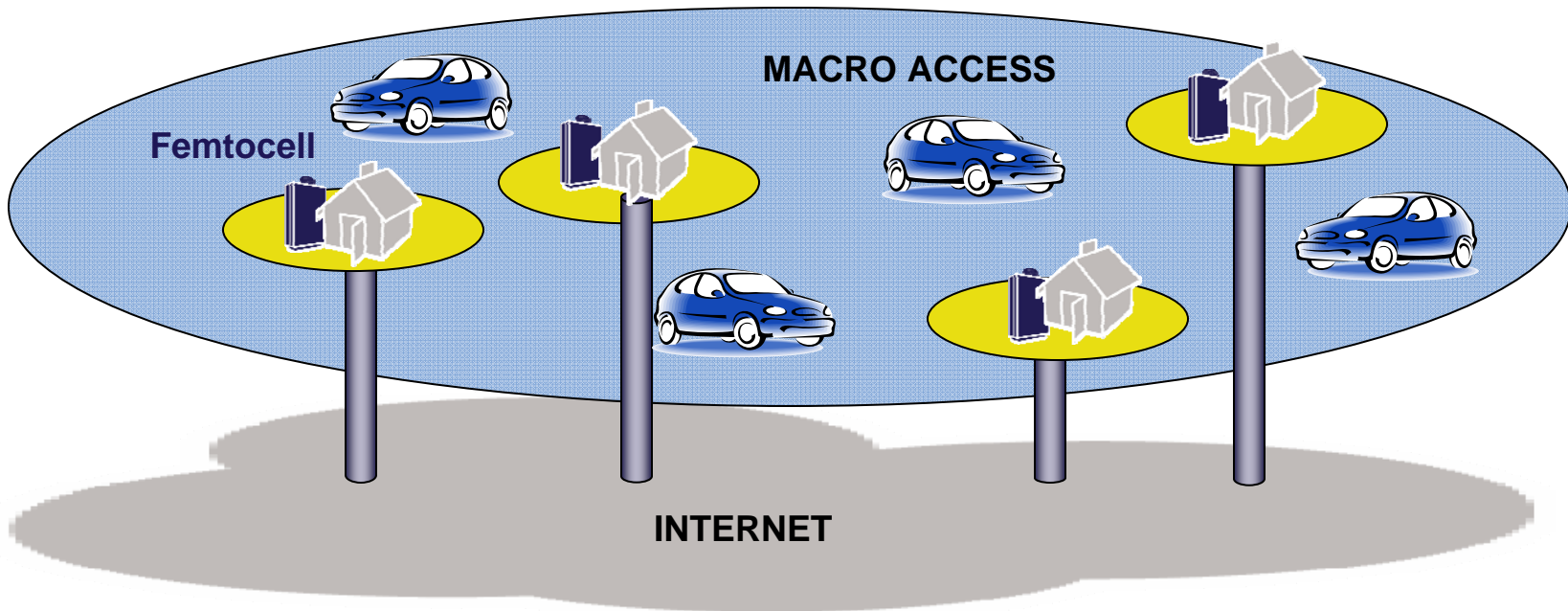
• What if Subscriber Growth Slows and ARPU is Flat ?

- Operator can not justify increased capex and opex with flat revenue



Annual Operating Data from Tier 1 US Mobile Operator, All \$ in Millions of USD

The Femtocell Alternative



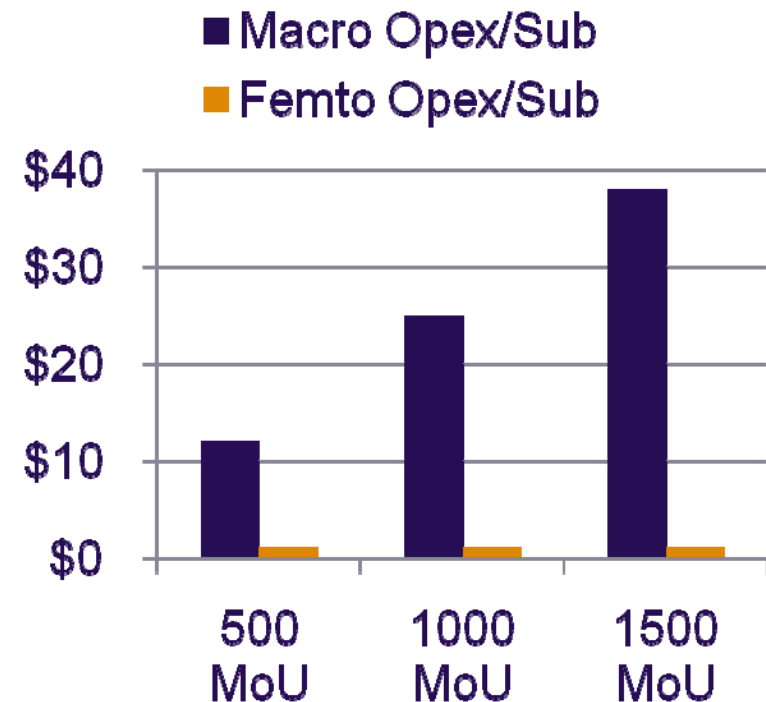
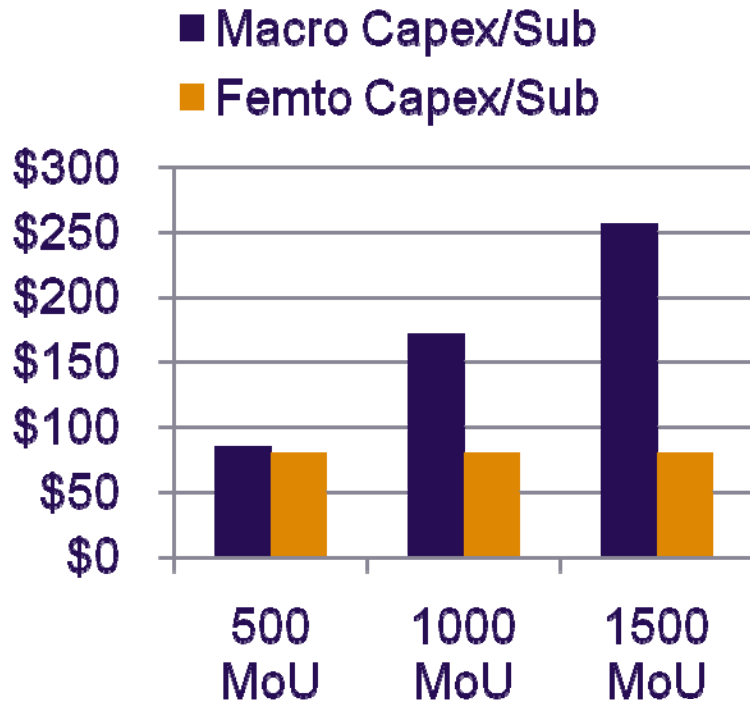
Consumer

- Improved "Intelligent" Coverage
- Wireline Quality
- Superior Broadband Experience
- New Low Cost Services & Plans

Operator

- Radically Lower Costs
- Massive Spectrum Reuse
- Huge Capacity
- New Service Revenue

Reducing Capex & Opex vs. Macro RAN



- Macrocellular networks cope with increasing traffic by adding new carriers, but with high Capex and Opex

**Femtocells Deliver Virtually Unlimited Capacity for a Few Users
With Low Capex and Virtually No Operating Expenses**

Example: Unlimited Calling Plan With 16 Month Payback

Consumer Service

Service: \$25/month

Unlimited calling for up to 4 members of a family

Value to Consumer

- Personal phone for everyone
- All existing handsets work
- Great voice quality & coverage
- Eliminate 2nd phone line, save \$\$

Operator Business Case

Capital Expenditure	
Core network per femtocell	\$35
CapEx	\$35
Cost per Gross Add	
Femtocell Price	\$200
Femtocell Price to Consumer	\$50
Subsidy	\$150
Service Marketing Expense	\$50
CPGA	\$200
Service Revenue (per month)	\$25
Network OpEx (per month)	\$8
Customer Support (per month)	\$3
Service Margin (per month)	\$14
Payback Period (months)	16

Transforming the Mobile Experience

About Airvana

Mobile Broadband

- All IP wireless networks (RAN) leader
- Fixed Mobile Convergence (FMC) pioneer
 - Universal Access Gateway
 - HubBub™ Femtocells
- Key Standards: EV-DO, UMTS & 4G

Key Channels to Market



Deployed by over 30 Global Operators

