40 YEARS
OF CHANGING
THE WORLD
Intel Developer
FORUM

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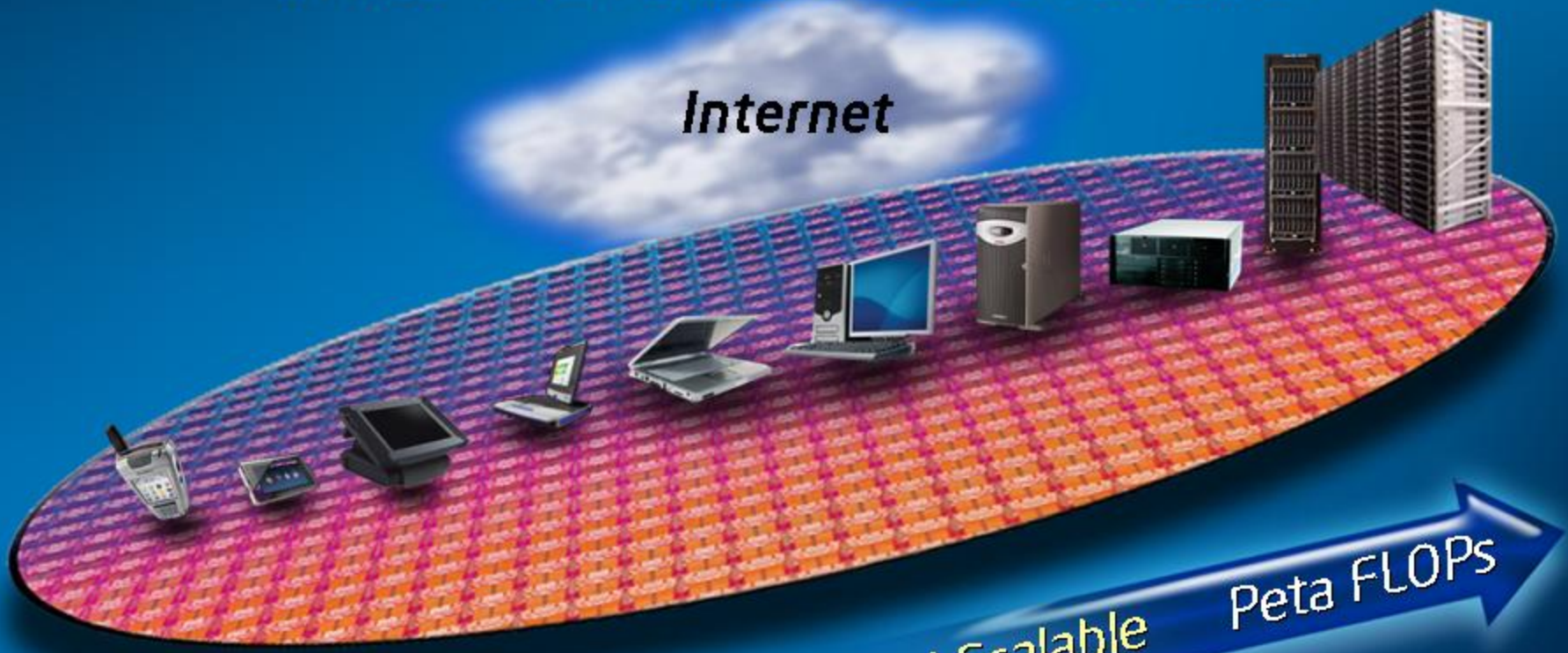
## Personalizing Your Computing Experience

**Dadi Perlmutter**
Executive Vice President
General Manager, Mobility Group

# Intel: The Architecture for Life




***Energy Efficient Performance***
***Solid Tick-tock Execution***

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# Making the Computer Personal

*WAS*

Boring Beige Box

Sat On Desk or Floor

"One Size Fits All"

A Computer, But Not "Personal"

# Making the Computer Personal

*IS*

Mobile

Stylish

Adaptable

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# Worldwide Notebook Forecast

## *Double Digit Growth Continues*

Source: Gartner, Global PC Forecast and Shipments Quarterly Statistics: Database,, February 2008 Update

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# Computing Personalization: Today's News

Introducing "netbooks" and "nettops"

Montevina: WOW!

New technologies and capabilities for notebooks coming

Computers now focus on form factor and style

WiMAX progressing around the world

# Enabling More People to Experience the Internet

*Simple*
*Affordable*
*Internet-Centric*

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# Bringing the Internet to New Users

*Worldwide Introduction June 2008*

*Emerging Markets: Primarily Education, 1st Time Users*

*Mature Markets: Education, Second+ Family Notebook*

# Personalizing the Mobile Choice

| | Internet in Your Pocket | Basic Needs | Full Features and Performance |
|---|---|---|---|
| Screen | 4.5" - 6" | < 10" | = > 12" |
| OS | Linux, XP | Linux, Windows | Windows |
| Key Usages | Infotainment | Internet-centric | Office Productivity & Multitasking |

Mobile Internet Device

Netbook

Notebook

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# Netbooks and Nettops

**INTERNET:**
Connectivity is a Key Usage for Basic Computing

**SILICON:**
45nm Diamondville Shipping in Q2'08*

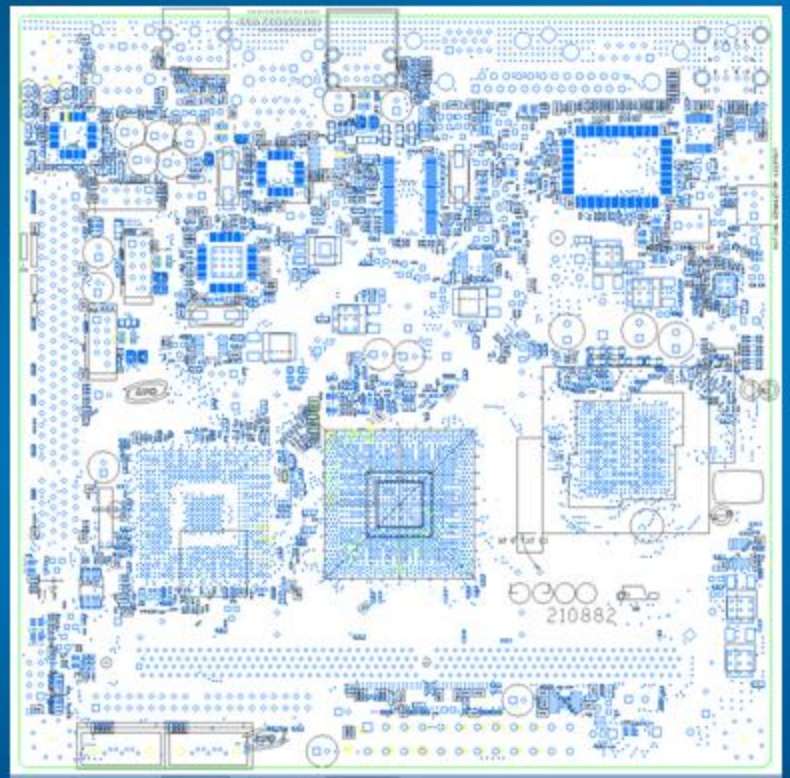
**SOFTWARE:**
Windows and Linux: Riding the Open Source Wave

**PURPOSE BUILT SOLUTIONS:**
Platform Optimized for Low BOM Cost

**FORM FACTOR:**
Portability, battery operation (netbook)

* Intel Forecast

# Nettop Motherboard Savings
## Compared to Standard Desktop Cost



- Voltage regulator
- No active heat sink
- No CPU socket
- Optimized clock savings
- Motherboard planer savings

***20-25% In Cost Savings***

Sources: Mercury Research; January 2008
Intel Research; February 2008

# Additional Nettop BOM Savings

+

**Additional Platform Savings:**

- Optimized PSU
- No system fans
- Moving from HDD to SSD
- Cost optimized OS solutions
- Optimized supply chain

*20-25% In Cost Savings*

***Purpose Built: Cost Optimization Delivers Improved Profitability In Components/Boards/System Level***

Sources: Mercury Research; January 2008
Intel Research; February 2008

# Developers Embrace Affordable Personalization

ASUS

CLEVO®

ECS

FIC

GIGABYTE®

Quanta Computer

Topstar 顶星数码

malata

MSI

PEGATRON

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Thin and Light

Battery Life

Performance

Style and Design

Security

Internet Access

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From Spring 2007 IDF, Beijing

# Building on a Tradition of Notebook Platforms

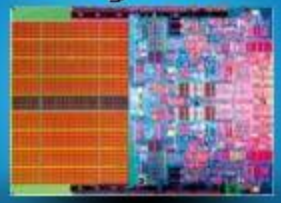
**Napa**
**2006**

Intel® Core™ Duo Processor

Intel® Wireless WiFi Link 4965AGN

**Santa Rosa**
**2007**

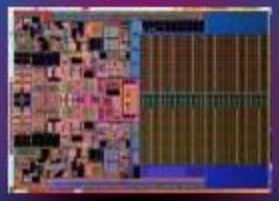
*Refresh*



Intel® Core™ 2 Duo Processor

**Montevina**
**2008**

*Refresh*



Penryn
(with Intel 45nm Hi-k metal gate silicon technology)

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From Spring 2007 IDF, Beijing

# Building on a Tradition of Notebook Platforms

Napa
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Refresh

Santa Rosa
2007

Intel® Core™ 2 Duo Processor

Refresh

Penryn
(with Intel 45nm Hi-k metal gate silicon technology)

**Montevina**

June 2008

# Montevina: Wow!

All dates, plans, features are preliminary and subject to change without notice

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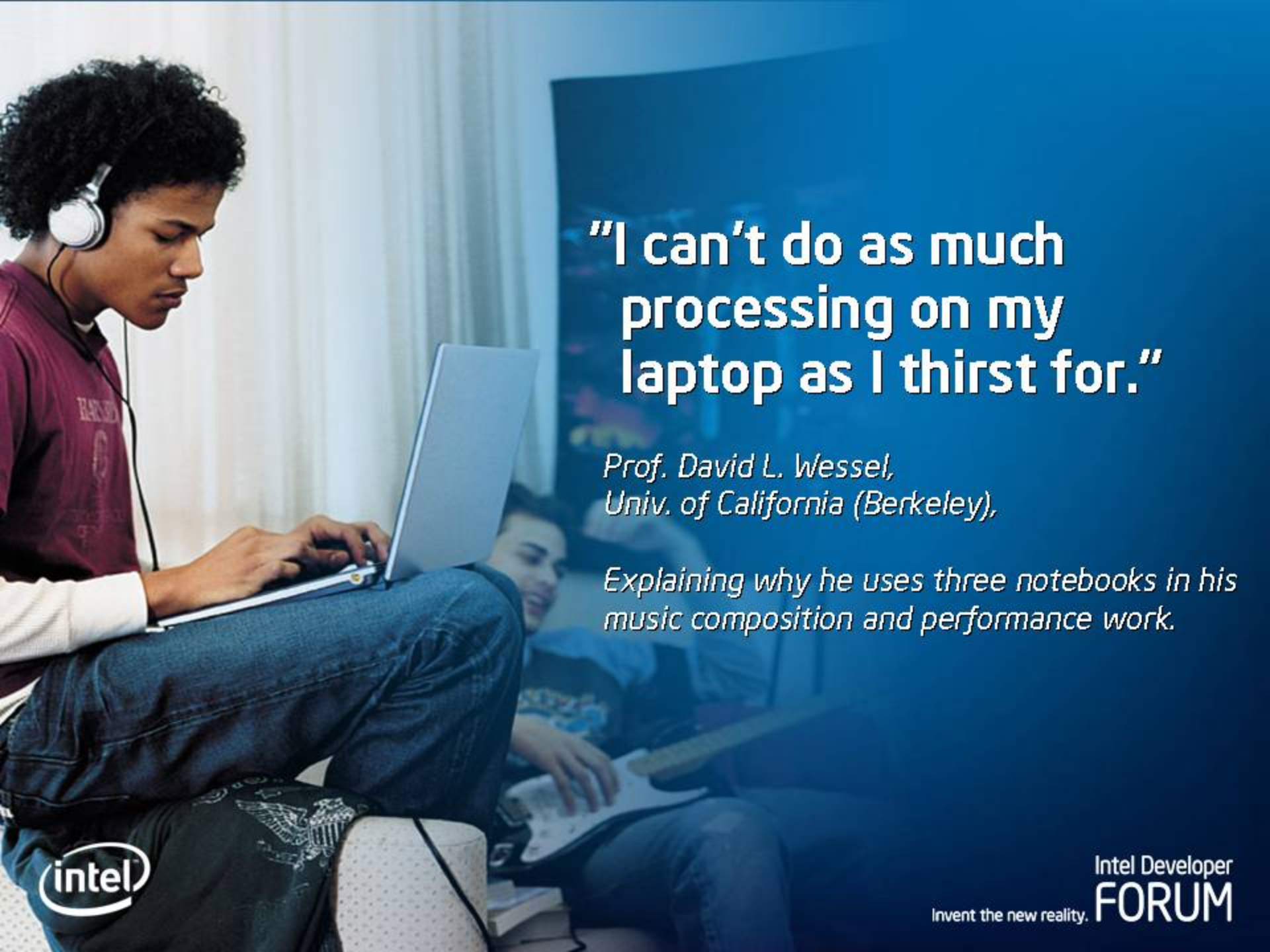
# Montevina: Wow!

英特尔™迅驰™2

All dates, plans, features are preliminary and subject to change without notice


"I can't do as much processing on my laptop as I thirst for."
Prof. David L. Wessel,
Univ. of California (Berkeley),
Explaining why he uses three notebooks in his music composition and performance work.
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# Montevina Visual Computing Plans

Stutter Free HD Playback

Battery Life: Watch a Full Hi-def Movie

HQV[1] Score >120

Stunning Visual Quality

~2X 3DMark Performance

3D Mark 06

DisplayPort & HDMI with HDCP

Scalable Power Performance

All dates, plans, features are preliminary and subject to change without notice

[1] HQV is a standard definition video quality benchmark. Highest possible score is 130.

# Intel® SATA Solid State Drives

1.8" & 2.5" Form Factors

32GB to 160GB Capacities

Faster System Responsiveness

1500Gs Extremely Ruggedized

Extended Battery Life

*Delivering on the Full Promise of SSDs*

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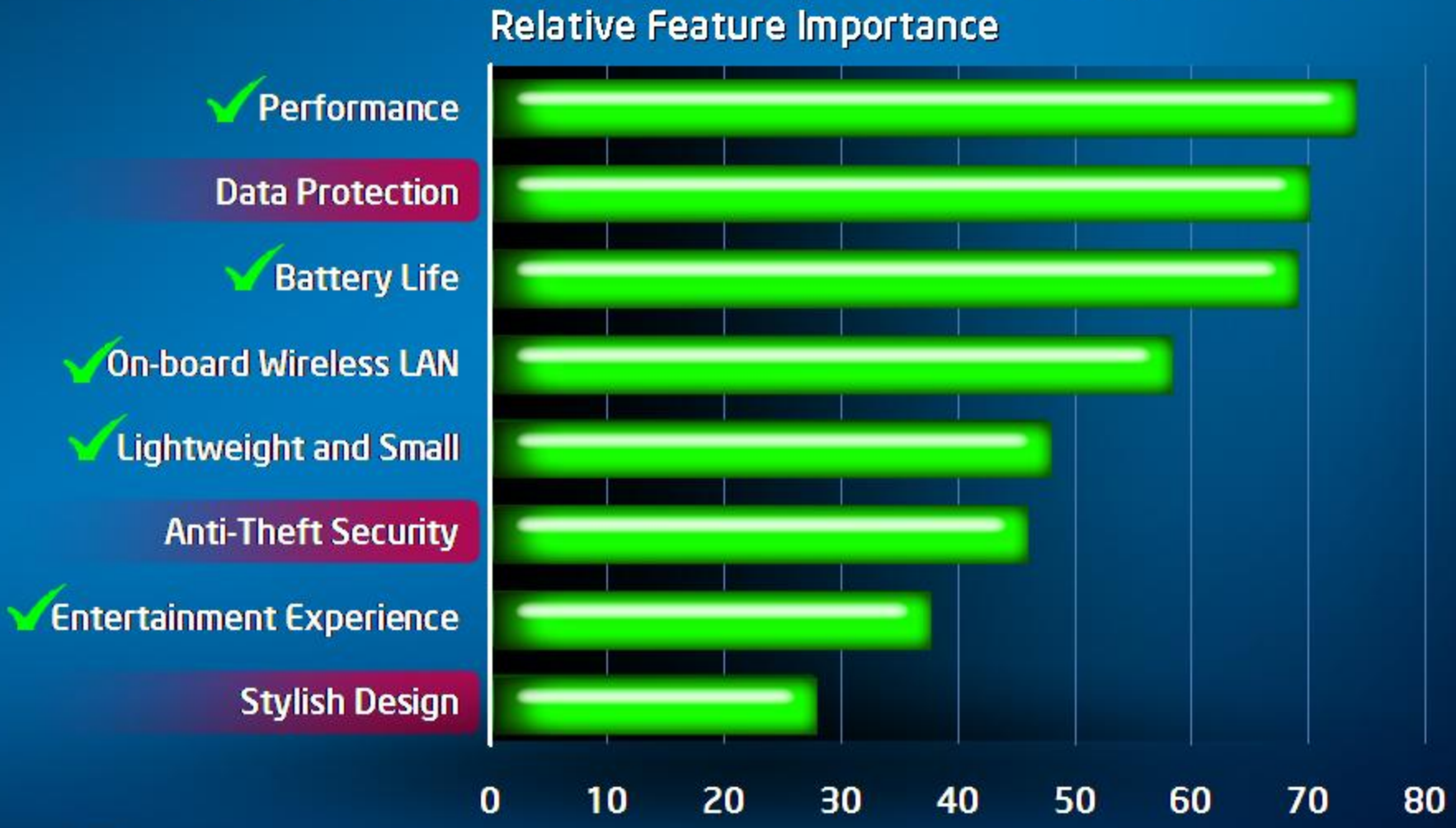
# Top Consumer Mobile Computing Needs




Source: Intel Western Europe Mobile Usage Study, Fall 2006

# Expanding and Personalizing Security
## Announcing Intel® Anti-Theft Technology

**Asset Defense:**

Platform Disable

Proactive Policies

Recovery Support

**Data Defense:**

Embedded Disk Protection

Data Access Disable

Absolute Software

FUJITSU COMPUTERS SIEMENS

lenovo

WORLDWIDE PARTNER

McAfee

phoenix technologies

utimaco safeware

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# Management of Corporate Clients

## Capabilities

Embedded Disk Protection

Network Security
Trusted Execution
Client-Initiated Remote Access

Manageability,
Energy Efficient Performance

英特尔™
酷睿™2博锐™

英特尔™
迅驰™博锐™

## Fellow Travelers

Managed Service Providers

System Integrators

Manageability &
Security ISVs

Desktop & Mobile OEMs

***User Payback:***

***Positive ROI with Single Usage Model***

***25-30% Average Power Savings***

# Continuing the vPro™ Technology Momentum

Proactive Security • Built-in Manageability • Energy Efficient Performance

*Over 14 Million Shipped To Date*

Source: Intel

# 2008 Intel™ vPro™ Technology Enhancements

**Improved Wireless Manageability**
*Even When Notebook Is Asleep!*

**Client Initiated Remote Manageability**

# Virtualization in Clients

Multiple Partitions in a Single Client

Services and New Capabilities

Assisted by Intel Hardware Implementation and Industry Innovation

# George He

Senior Vice President,
Chief Technology Officer
Lenovo Group

lenovo

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# Lenovo Client Virtualization Platform

# Secure Banking Solution

Windows Vista™

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# Growing Global Adoption of WiMAX: Korea

## KT WIBRO Deployments Growing

100k Users → 400k EOY '08

10M POPs Today → 28 Cities EOY

20 Devices (Approx.): Modems, Phones, PCs, PMPs

Users Enjoy ~3X Performance of 3G

KT WIBRO

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# Growing Global Adoption of WiMAX: Russia

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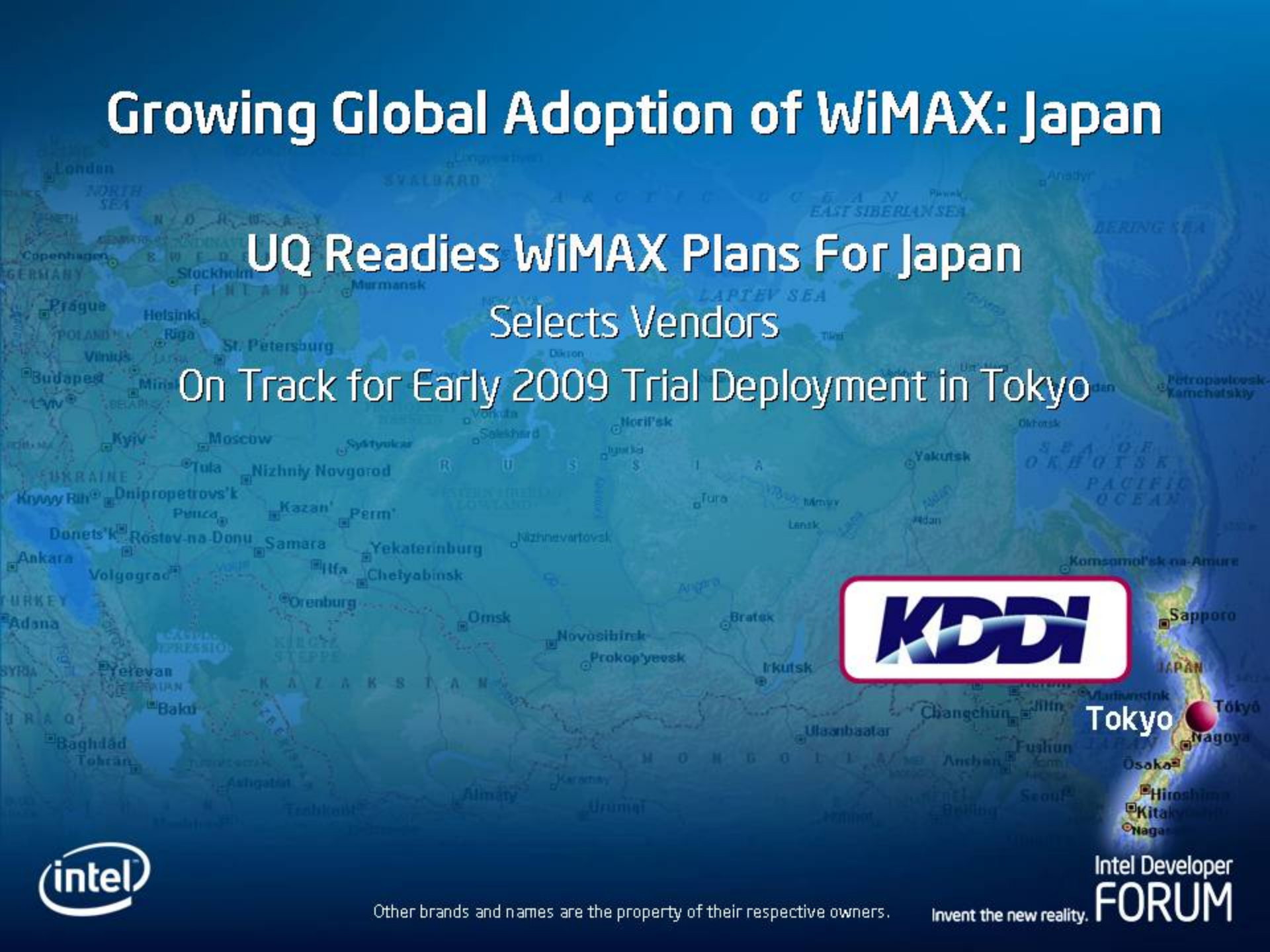
# Growing Global Adoption of WiMAX: Japan

## UQ Readies WiMAX Plans For Japan

Selects Vendors

On Track for Early 2009 Trial Deployment in Tokyo

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WiMAX
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Personalizing the Personal Computer
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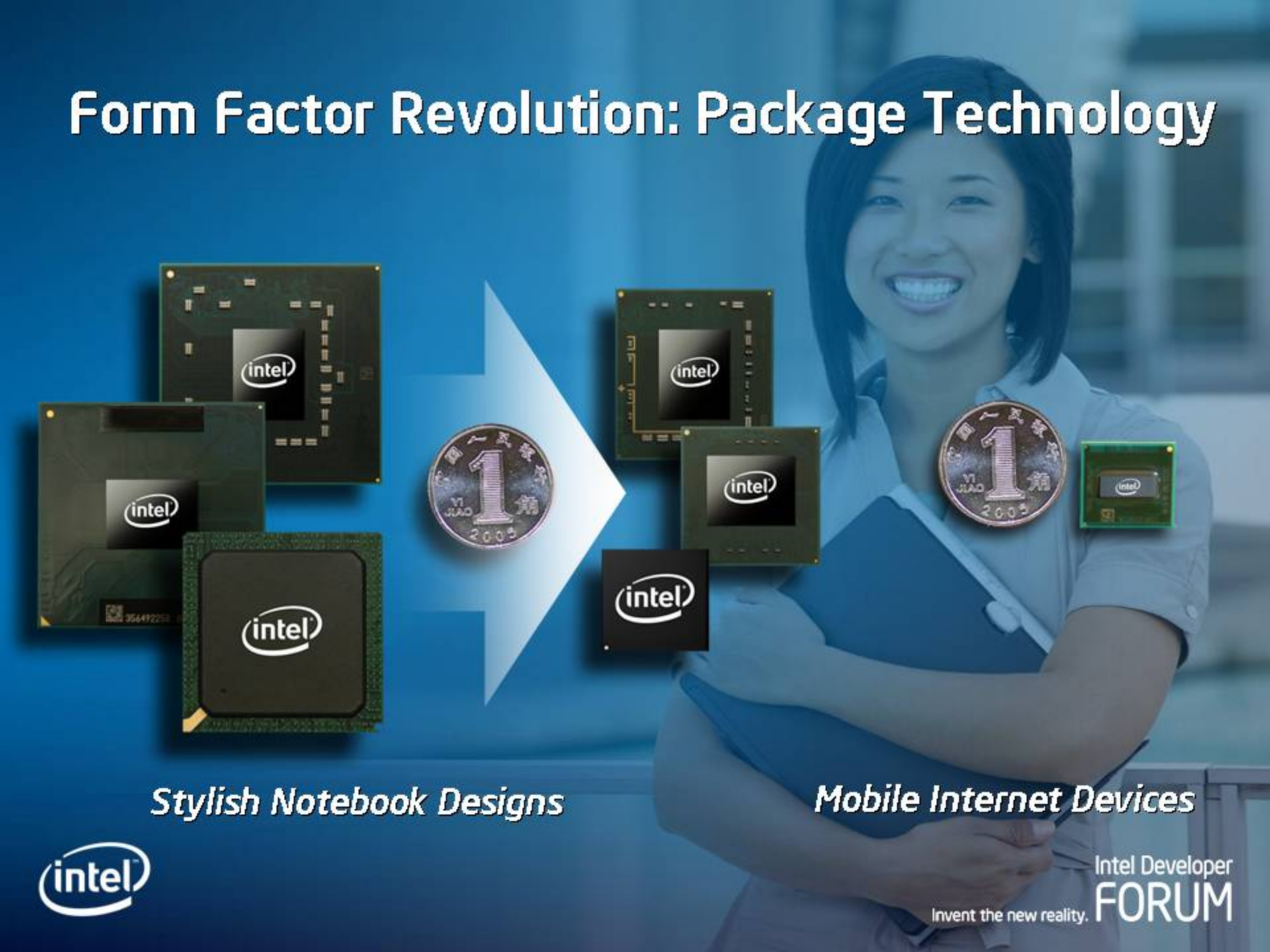
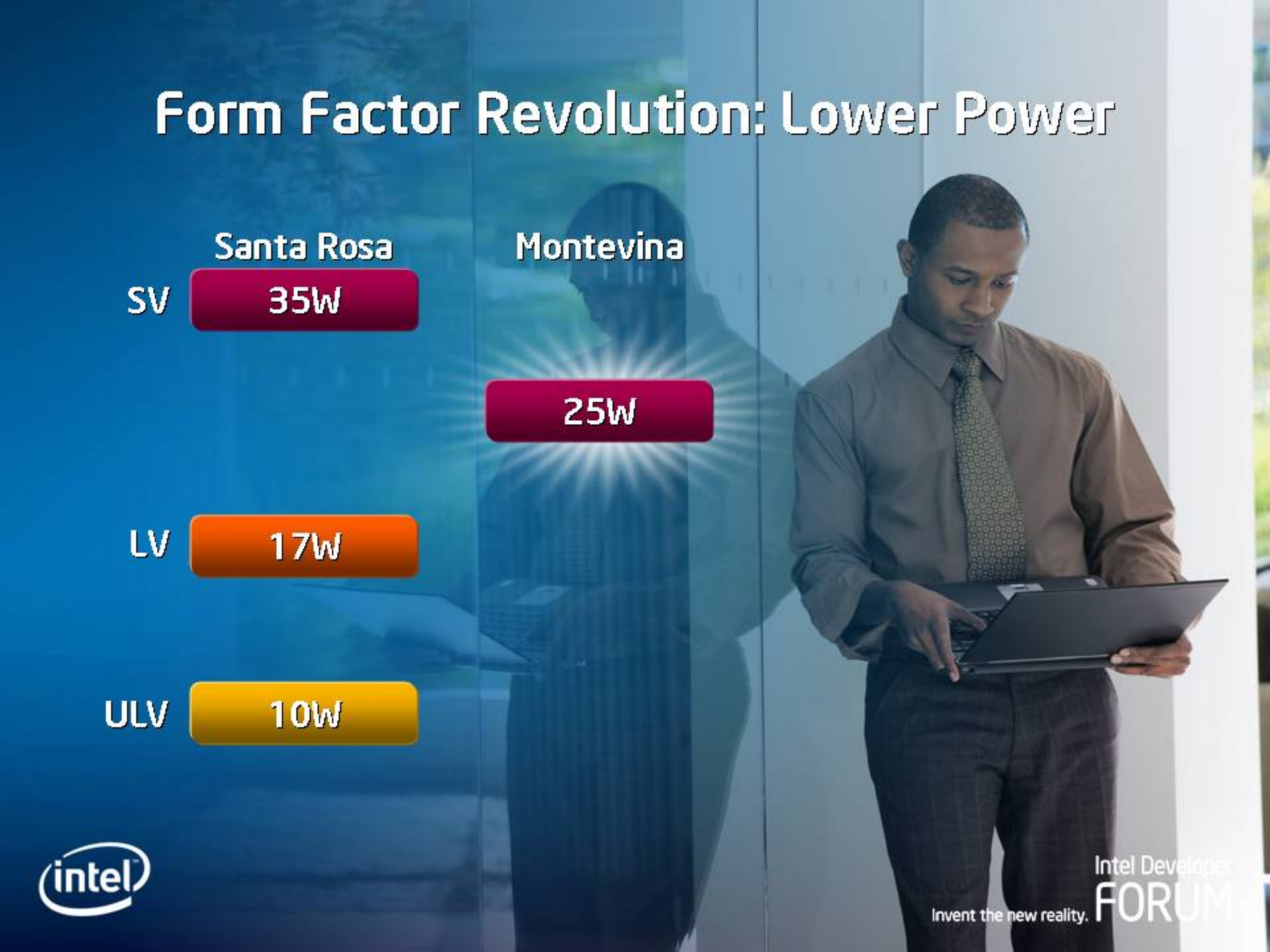
# Form Factor Revolution: Package Technology



# Form Factor Revolution: Lower Power

| | Santa Rosa | Montevina |
|---|---|---|
| SV | 35W | |
| | | 25W |
| LV | 17W | |
| ULV | 10W | |



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# Light, Thin, and Stylish Notebooks

*Thin Is In*

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# Building on a Tradition of Notebook Platforms

Napa
2006

Intel® Core™ Duo Processor

Santa Rosa
2007

Montevina
2008

Calpella
2009

"You could set your clock to Intel's mobile platform roadmap."

DAILY TECH

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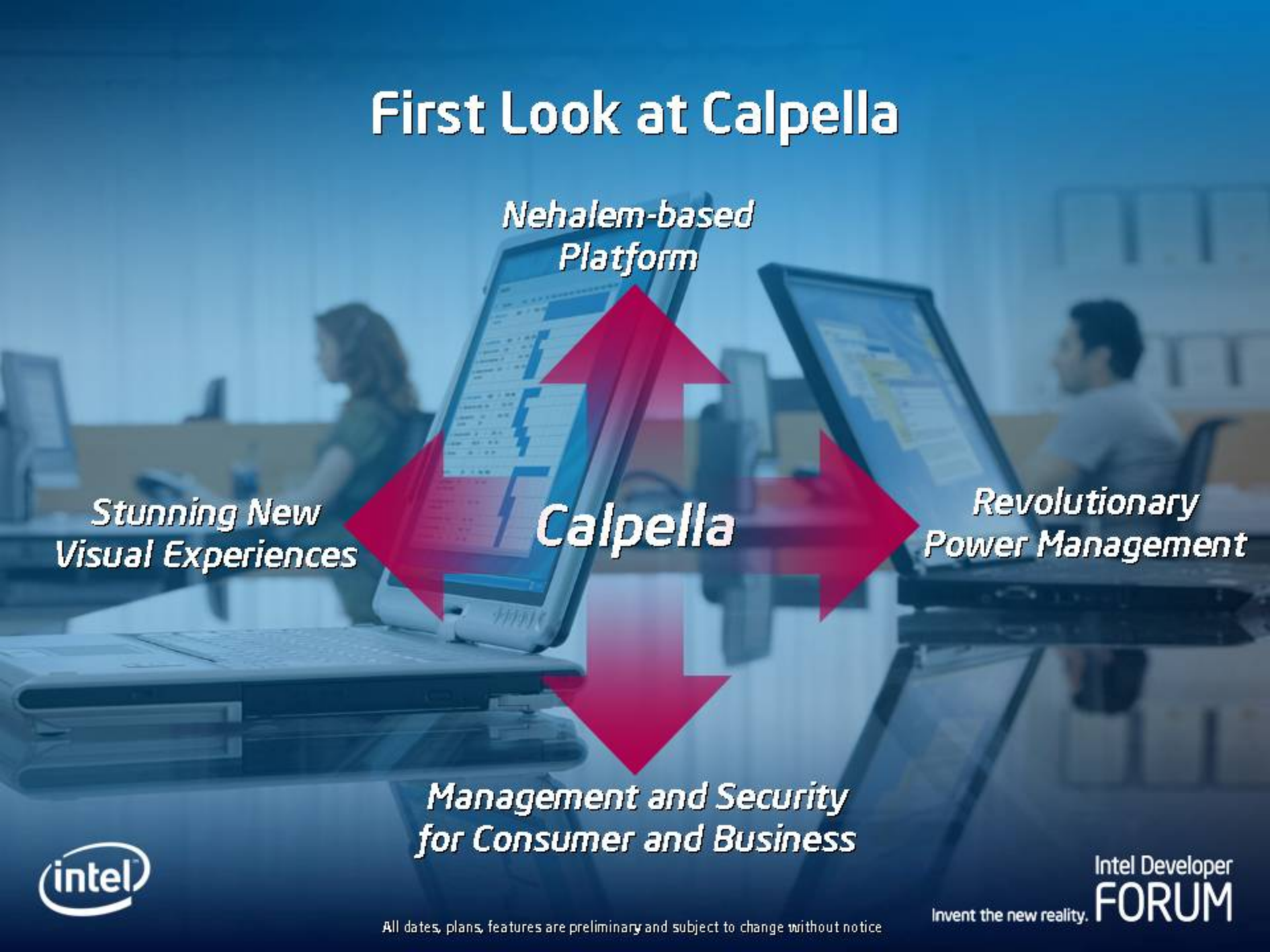
# First Look at Calpella

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## *Double Digit Growth Continues*

Source: Gartner, Global PC Forecast and Shipments Quarterly Statistics: Database,, February 2008 Update

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# The Personal Journey Continues

The Computer Gets Personal and Better Than Ever!

Expanding Client Manageability, Security and Virtualization

Extending the Reach of PCs with Netbooks and Nettops

Form Factor, Style and Fashion Take Center Stage

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OF CHANGING
THE WORLD
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