

# **IP Core Network Realization**

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**Technical Marketing Engineering**

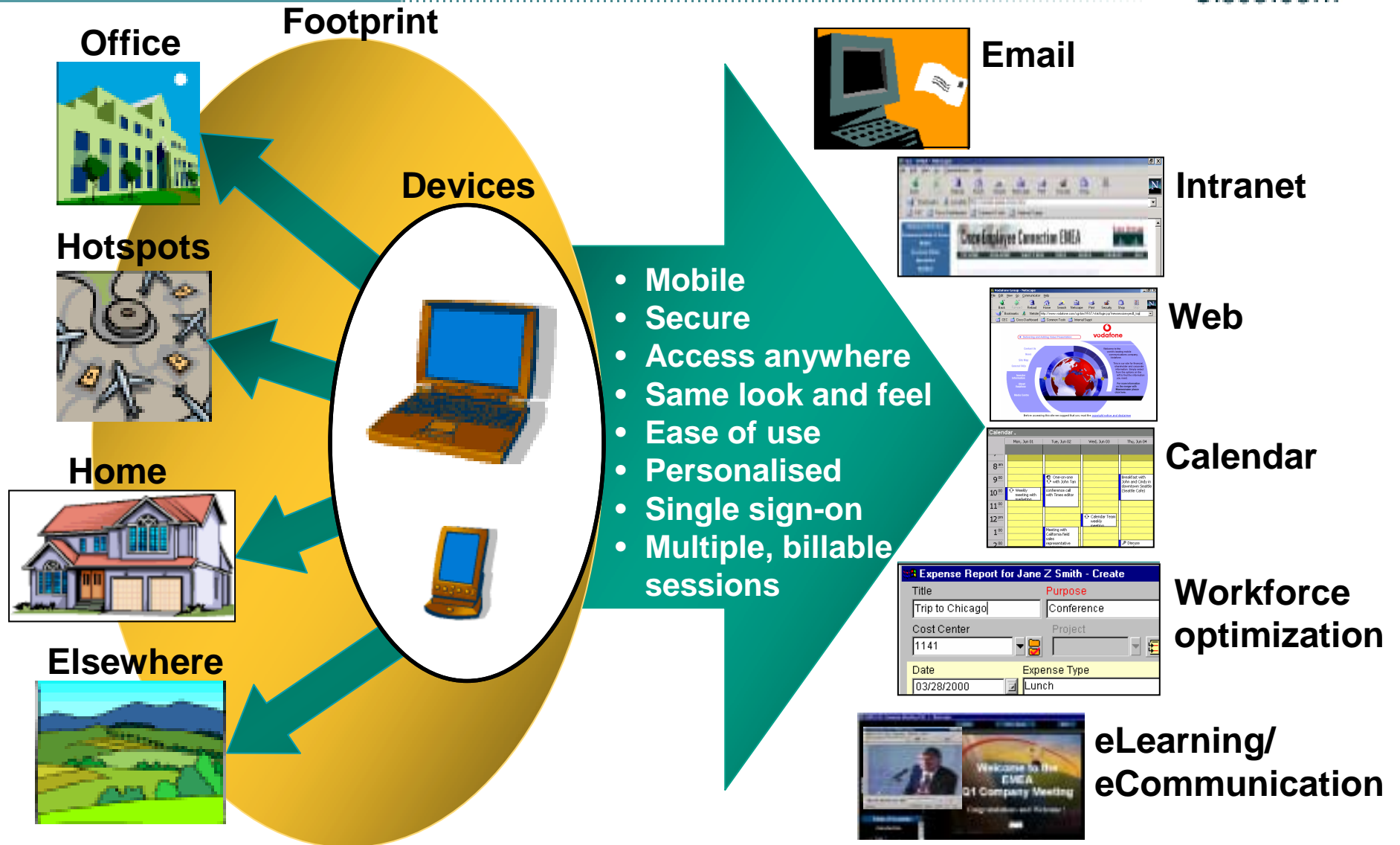
**Mobile Wireless Group**

# IP Core Network Realization - Agenda

Cisco.com

- **Introduction**
- **Major Driving Forces**
- **Industry Migration to all IP**
- **IP Core Key Elements**
- **Summary**

# Office Unwired

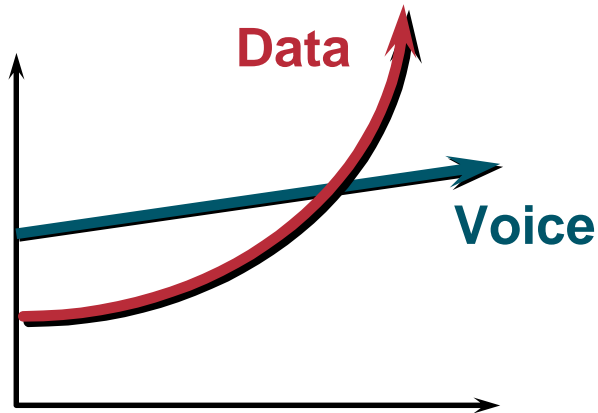


# IP Core Network Realization - Agenda

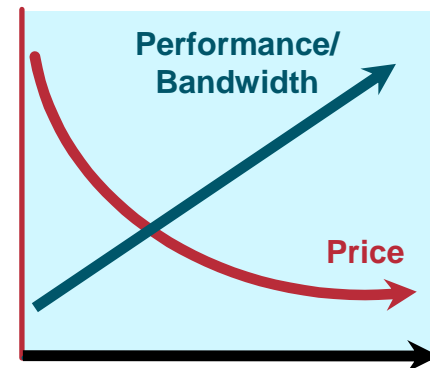
Cisco.com

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# Major Market Forces



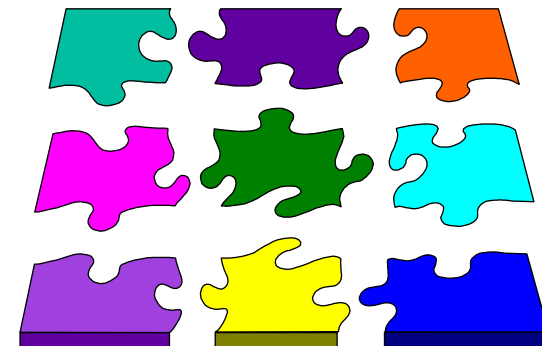
**Internet Explosion**



**Technology**



**Global Deregulation**



**Open Standards**

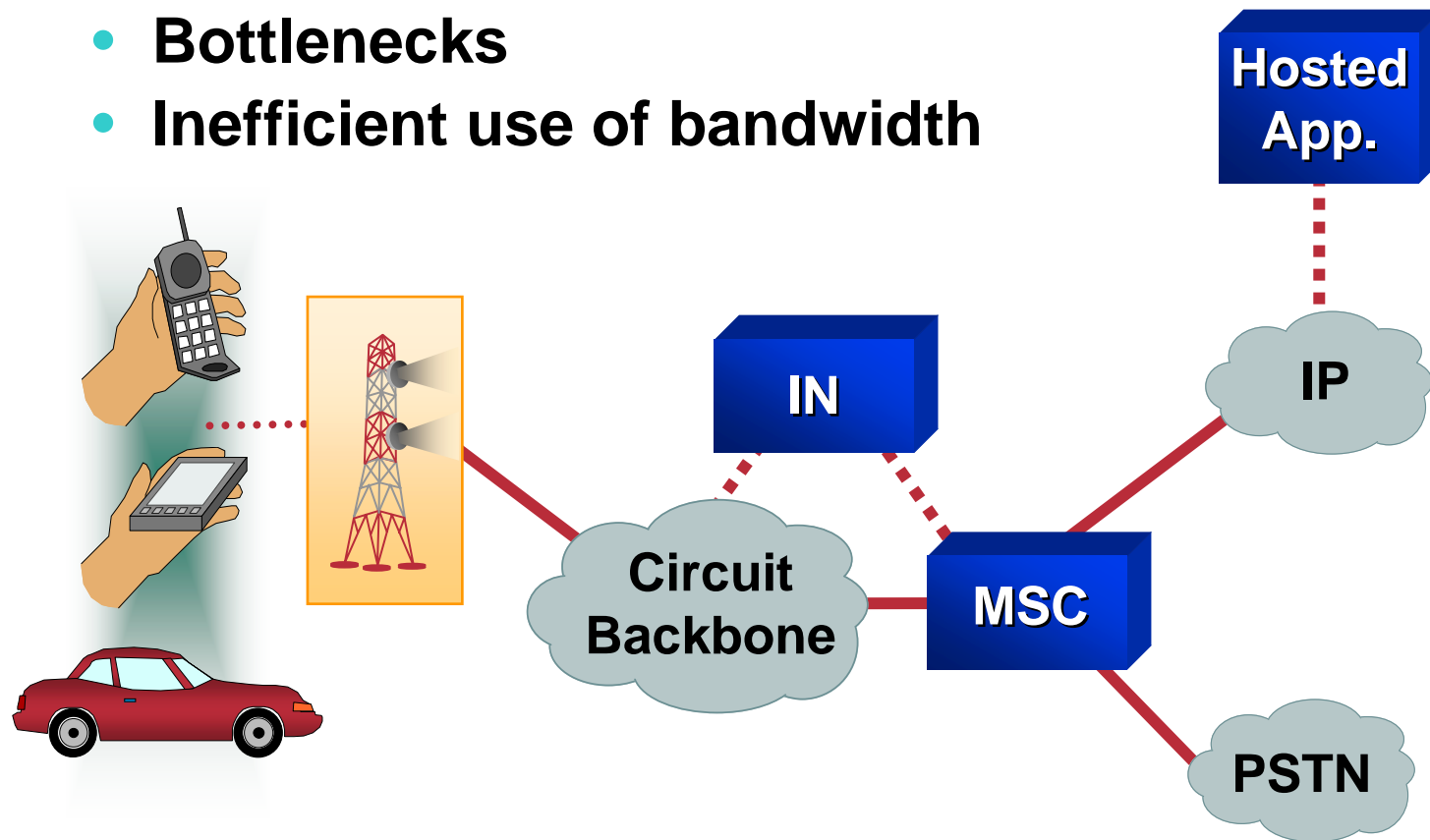
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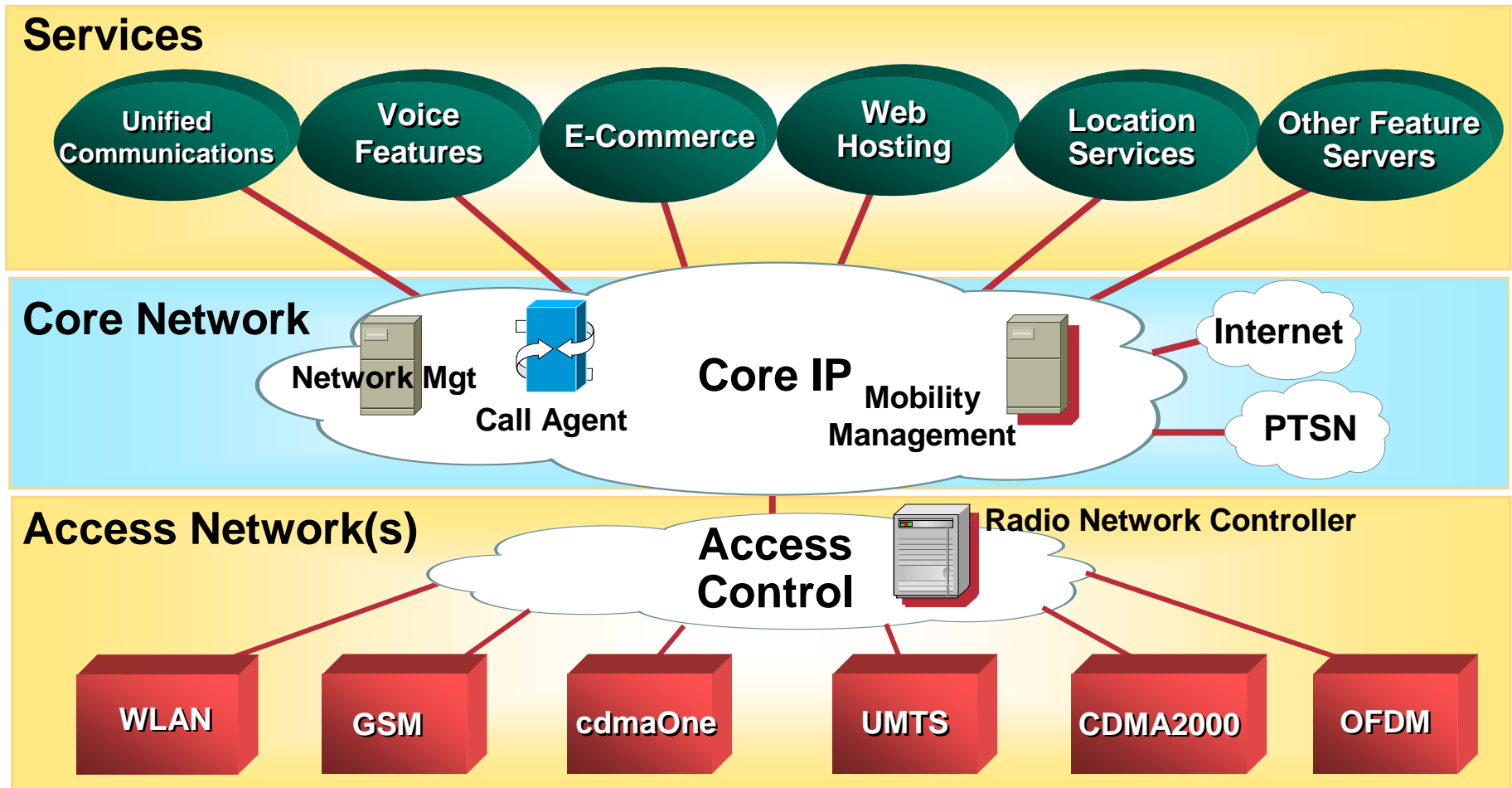
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# Wireless Architecture Today

- Services specific to equipment supplier
- Hierarchical
- Bottlenecks
- Inefficient use of bandwidth

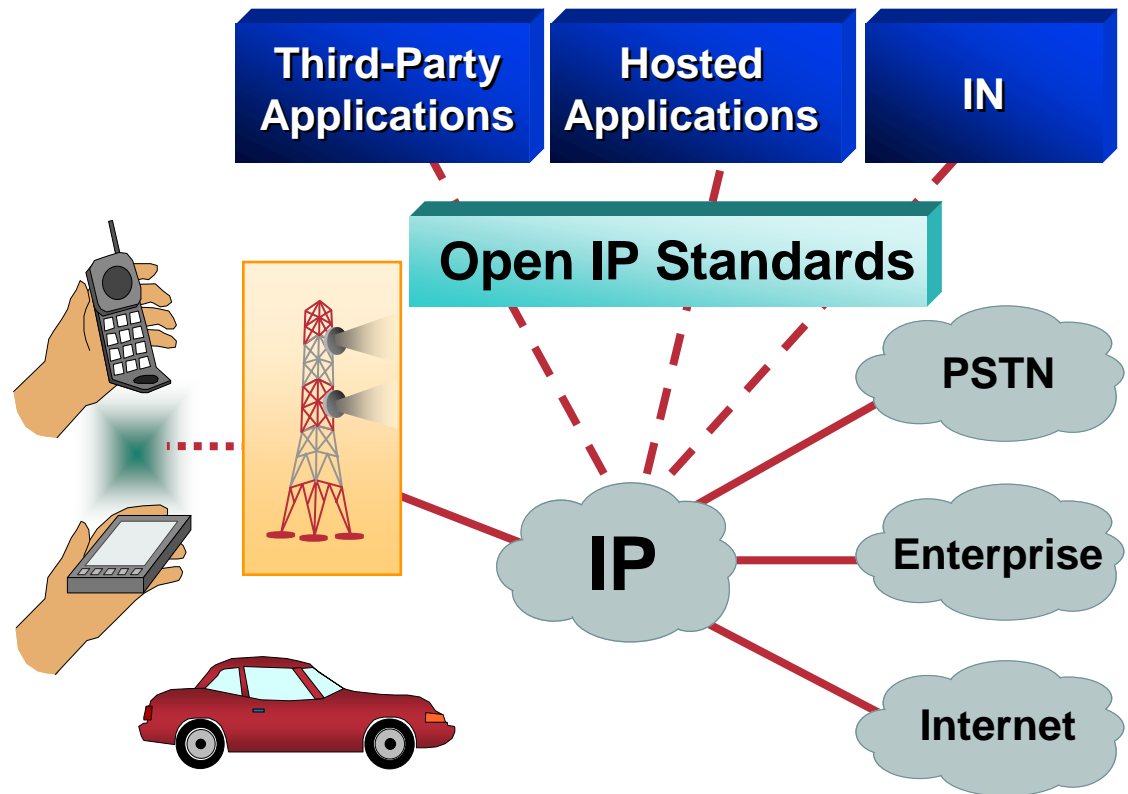


# Common IP Architecture



# Wireless Internet Architecture

- **Distributed**
- **Service and transport independence**
- **Services ecosystem**
- **Bandwidth efficient**
- **Options for integrated services**



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# The Benefits of Integrating IPv6

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**Large Address Space**



**“Plug-and-Play”**

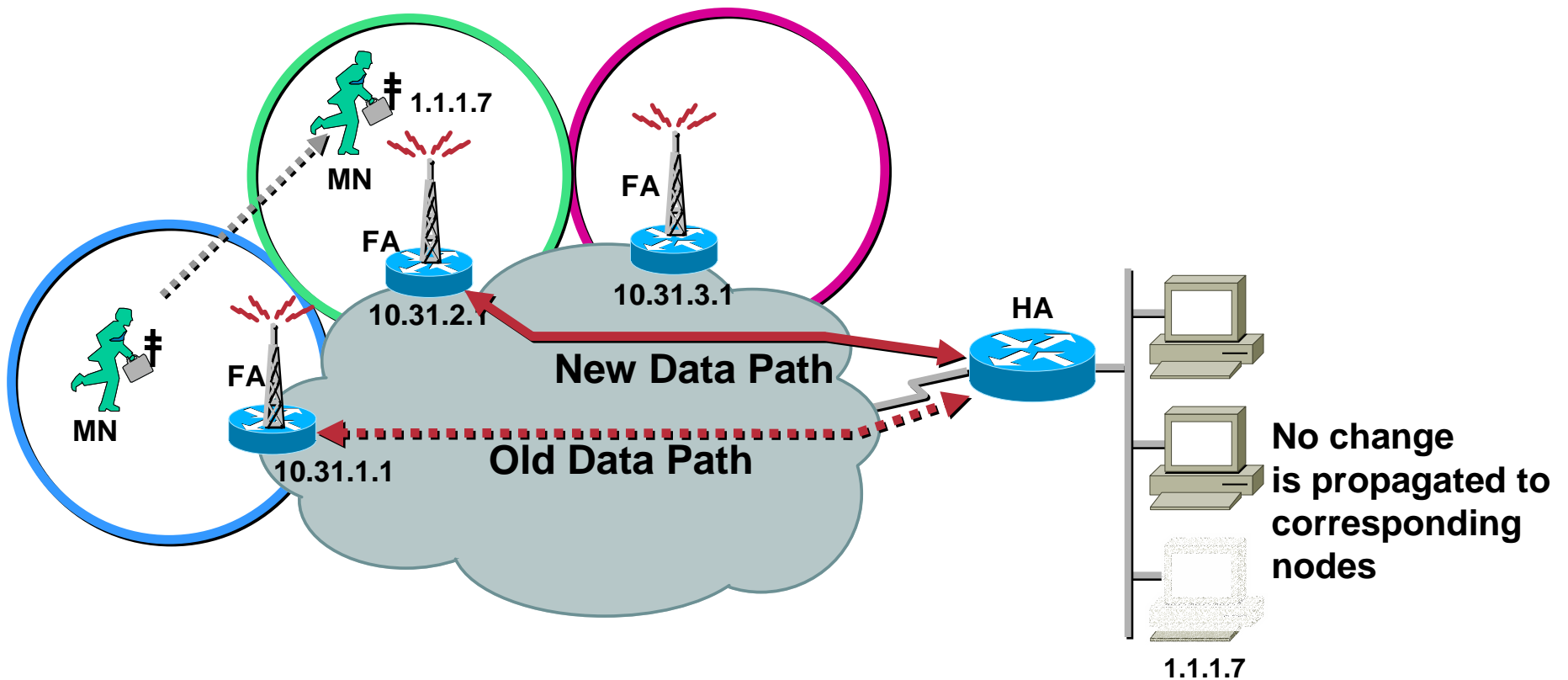
**The Ubiquitous Internet**

**Enhanced Mobility**





# Mobility using Mobile IP



**The movement is transparent to all other devices**

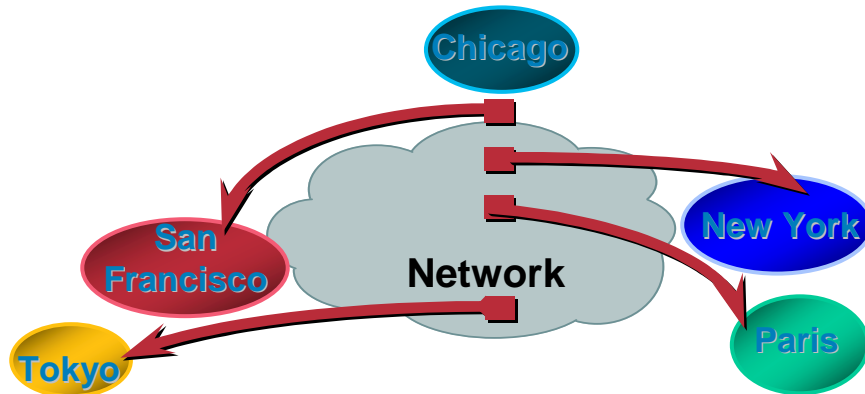
# IP Core QoS Architecture



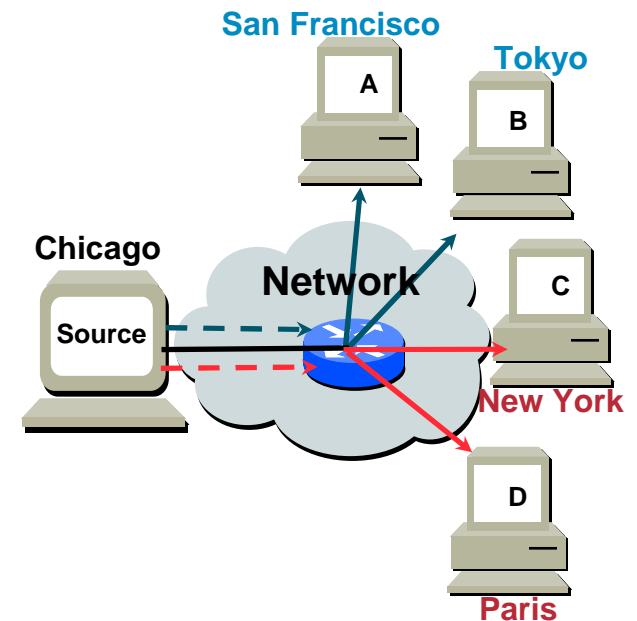
- **Classification**
- **Marking**
- **Policing and Shaping**
- **Scheduling**
- **Congestion Avoidance**

# Multicast Services Are Efficient

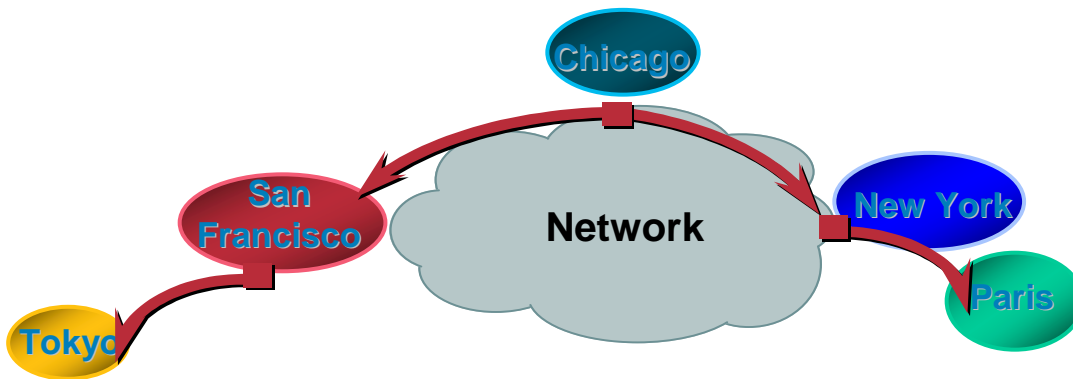
## Unicast: Many Copies of the Same Packet Sent



## Multicast



## Broadcast: Entire Network Receives the Packet



- Bandwidth Conservation
- One source to few groups
- Multiple sources to different groups

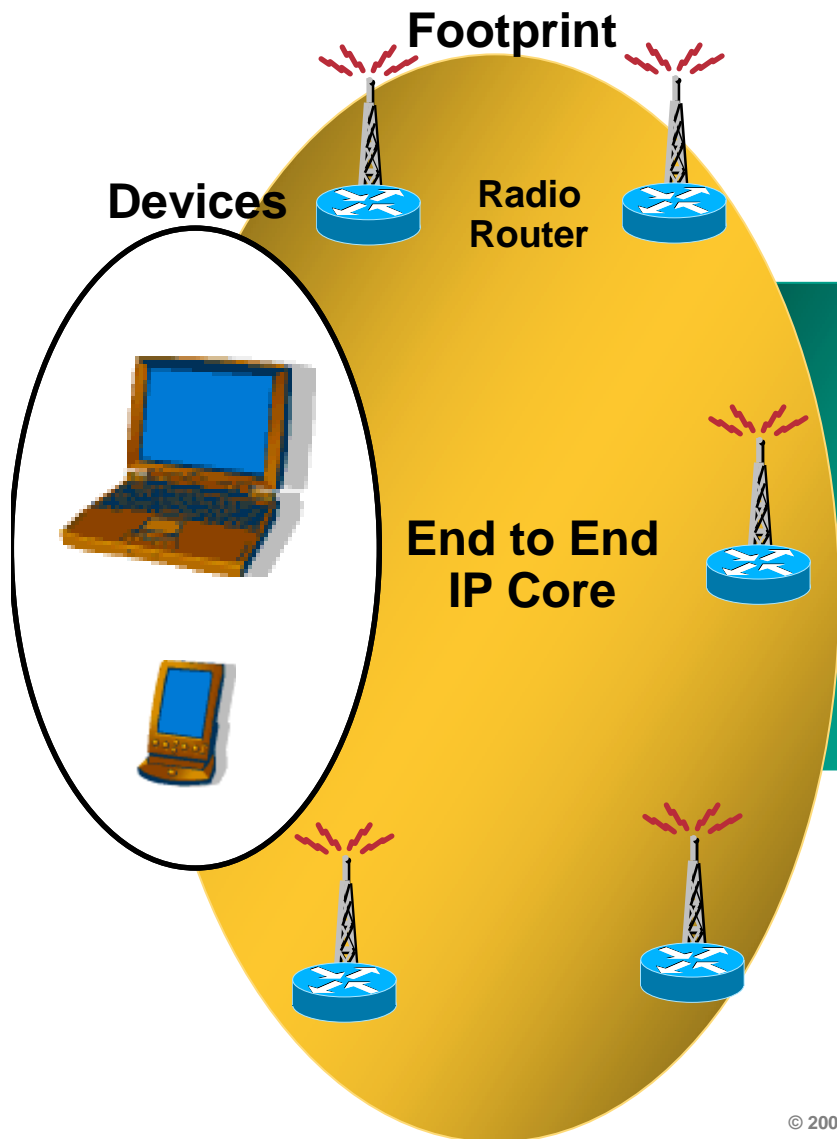
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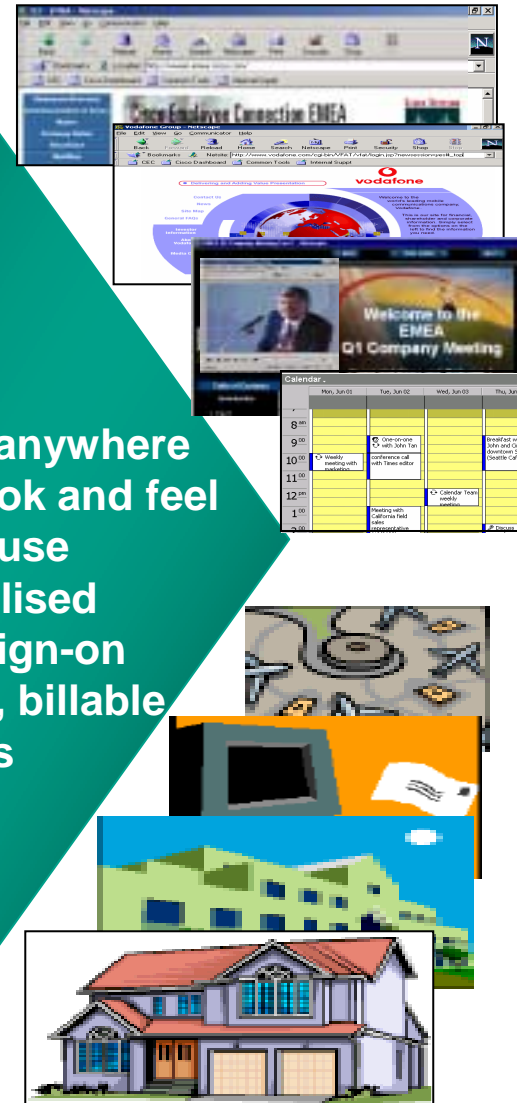
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- **IP Core Requirements**
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# Office Unwired – New World Operator

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- Mobile
- Secure
- Access anywhere
- Same look and feel
- Ease of use
- Personalised
- Single sign-on
- Multiple, billable sessions



Intranet

Workforce optimization

E-Learning

Calendar

Hotspots

Email

Office

Home

# CISCO SYSTEMS



EMPOWERING THE  
INTERNET GENERATION<sup>SM</sup>