



**i n v e n t**



# Empowering Service Providers with the Tools for Success

Joe Gersch  
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HP OpenView  
Service Provider Solutions

# The Changing Enterprise

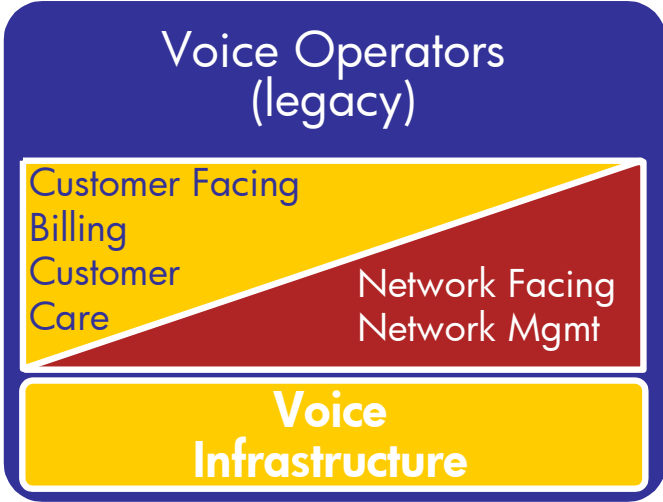
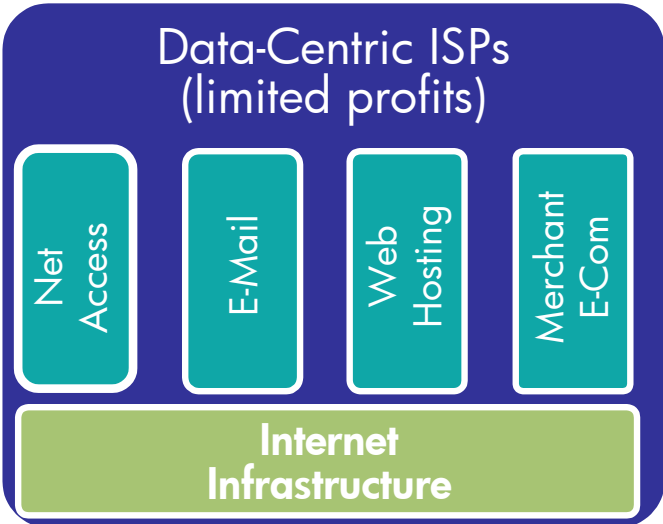
- Anyone, anytime, anywhere
- Everything is an “e-Service” over the Internet
- “Wired” and “wireless” user access

*“within five years, all companies will be Internet companies, or they won’t be companies.”*

-- Andy Grove

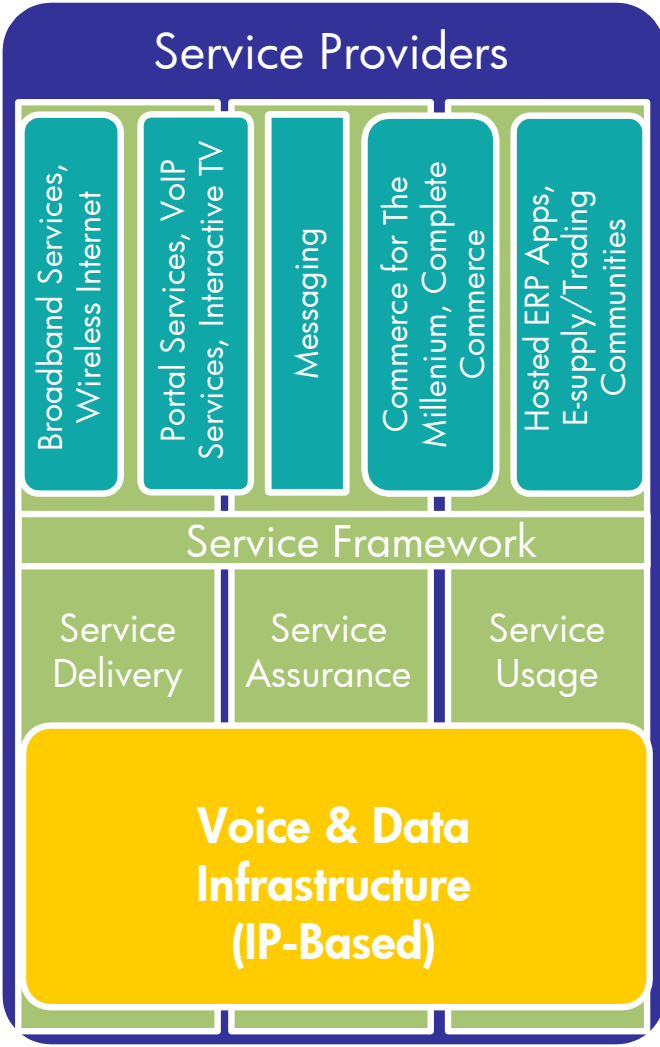
# Service Provider Market Trends

Today...



- Telecoms moving voice NWs to IP & broadband
- Rapid emergence of new independent IP-based service providers
- Enterprise moving to internal SP model
- Enterprises outsourcing applications & business processes to Application and Business SPs
- Continuing evolution of ISVs to ASPs; mobile apps also emerging
- Sales and support for SP sol'ns to small-medium businesses
- Consumer appliances moving to a .net portal services model
- Wireless is a key driver

Re-engineering...



# Who are Service Providers Serving?

E-enterprises ...

Consumers ...

Other Service Providers ...  
and You

All who demand:  
High Quality, Readily  
Available and Low Cost...

## Services On Demand



# Service Provider Business Challenges





# Service Provider Technology Challenges

**Rapidly deploy and scale new  
services and technologies ...**

...provided by multiple suppliers  
and delivery partners ...

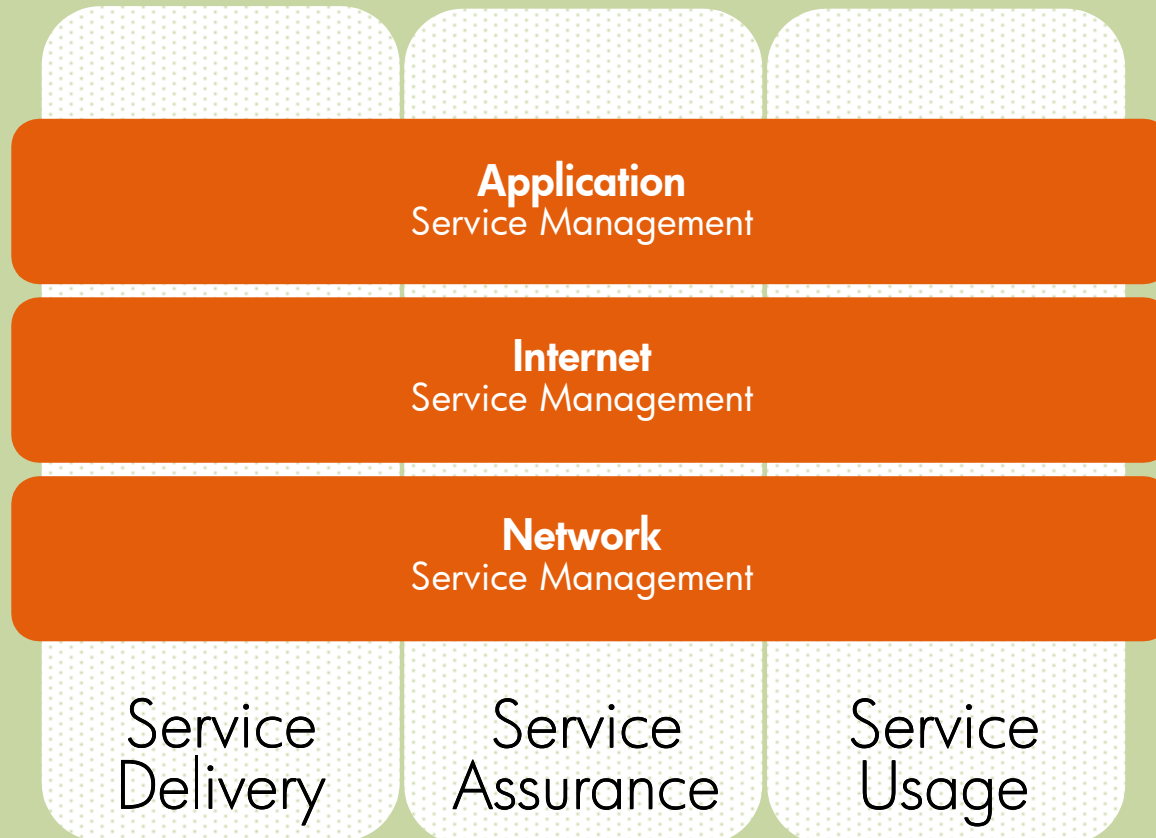
...into very complex and possibly  
legacy service infrastructures ...

...without negatively impacting  
system uptime, performance, or  
security.



# Service Providers Require ...

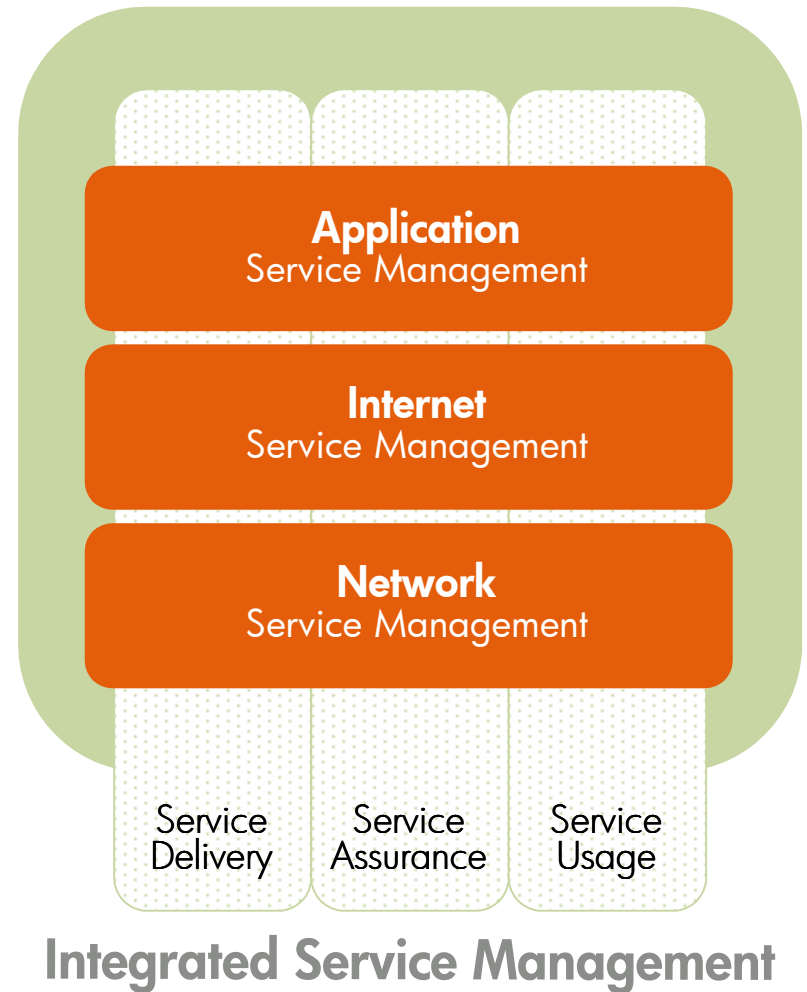
## Integrated Service Management Solutions





# Service Provider Solution Segments

- **Full** Service Providers
  - Provide services at all levels
  - Need a comprehensive, well-integrated management solution
- Specialized Providers
  - Need focused solution
  - Need integration with upstream and downstream providers
  - Management Service Providers



# Visibility of outsourced services



**Application** Service Management

**Internet** Service Management

**Network** Service Management

Service  
Delivery

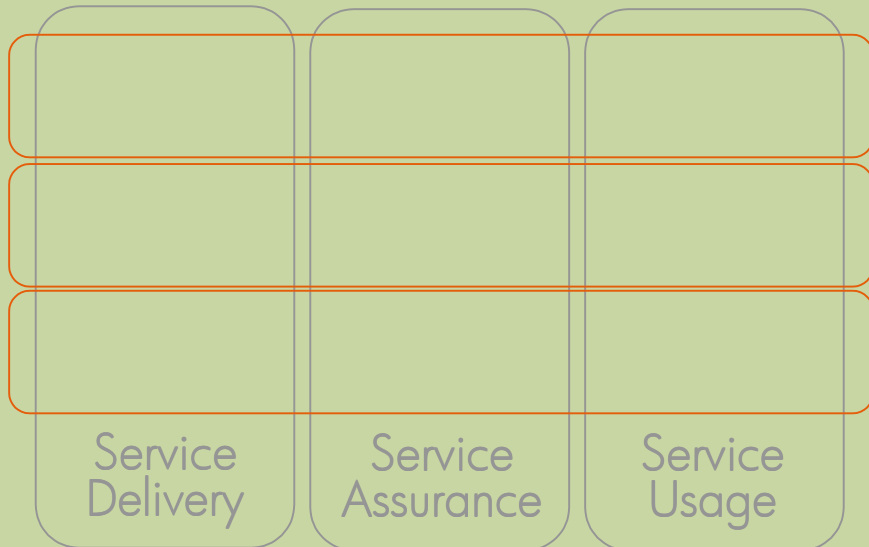
Service  
Assurance

Service  
Usage

Enabling service providers to provide their service provider and end-user customers with a secure and customized view of their outsourced environment including ...

- Multi-source data consolidation
- Customer-centric information
- Customized look & feel
- Access via a web browser

# Common Solution Elements



- Central point of control
- Consolidated view of events
- Flexible customer service-based reporting
- Services and support

# Network Services Management



## Network Service Management

Service  
Delivery

Service  
Assurance

Service  
Usage

- Complete visibility of networked environment health
- Up-to-date status information
- Differentiated levels of service
- Rapid fault diagnosis and repair



# Internet Services Management



## Internet Service Management

Service  
Delivery

Service  
Assurance

Service  
Usage

- Manage availability and performance of Internet services
- Manage Internet service level objectives
- Manage resource consumption information
- Manage web service quality



# Application Services Management



## Application Service Management

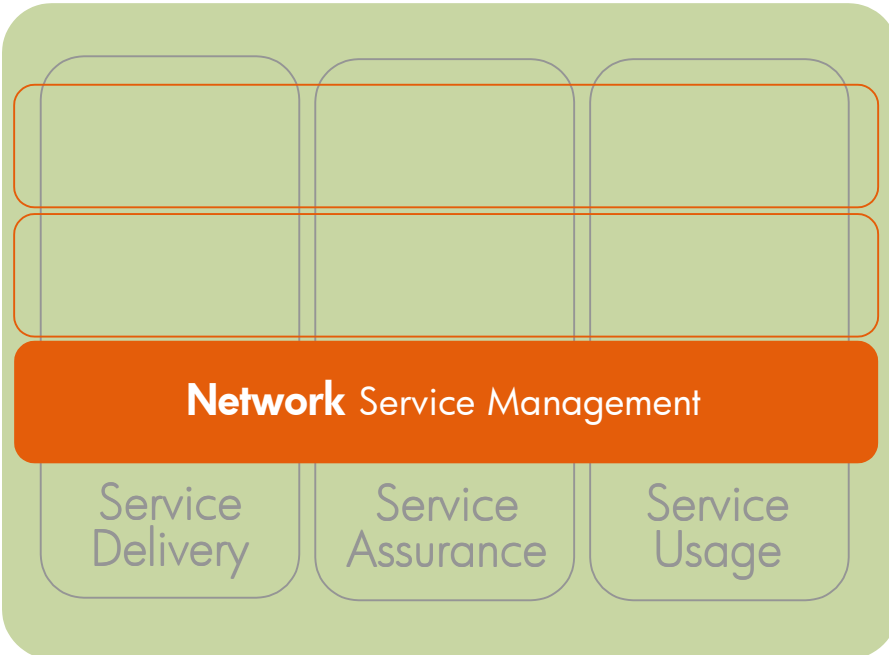
Service  
Delivery

Service  
Assurance

Service  
Usage

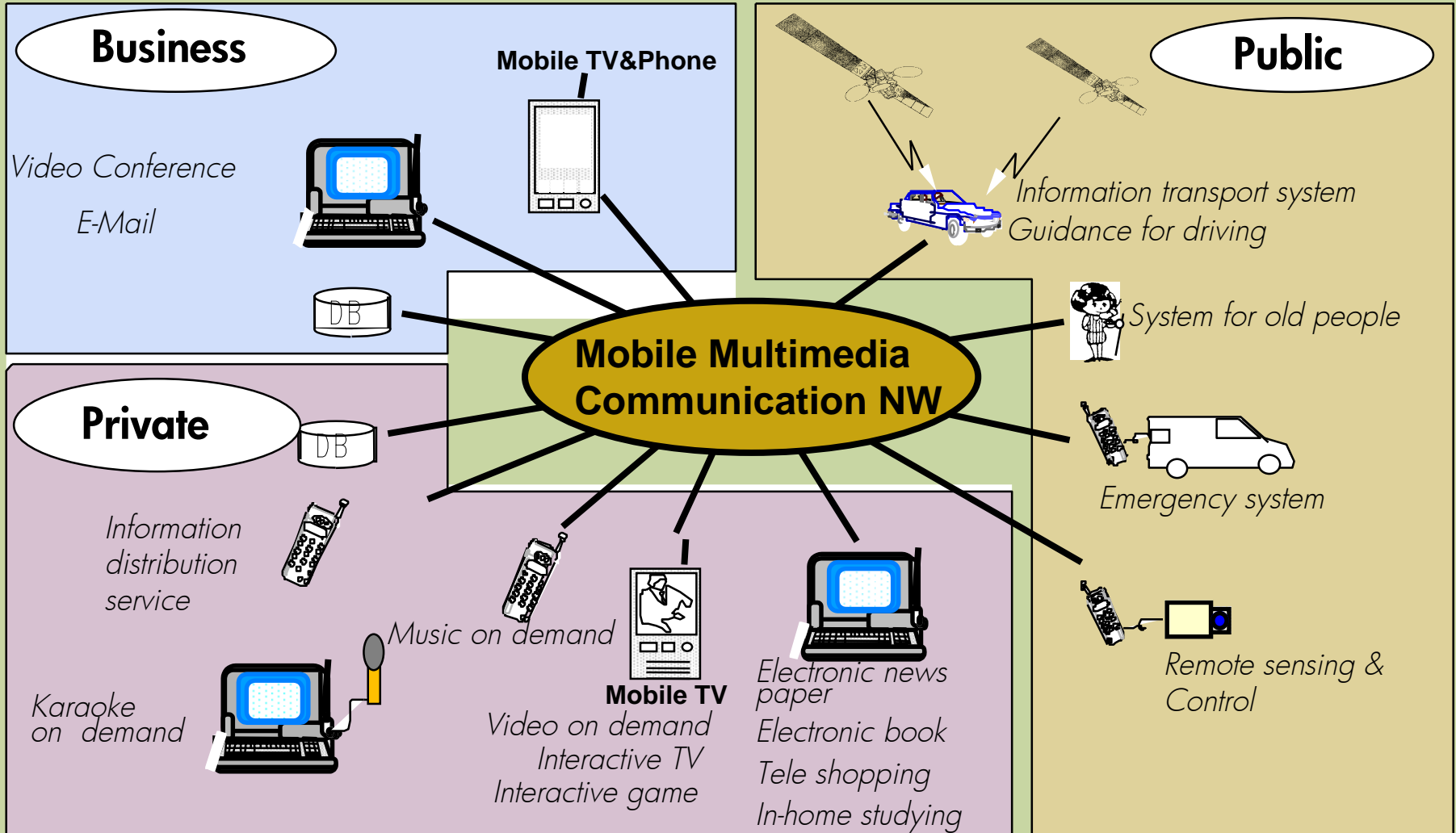
- View application / supporting infrastructure relationship
- Measure end-user application response time
- Manage of Service Level Agreements (SLA)
- Extend application and database management

# Converged Voice and Data Services Management



- Manage merged voice and data networks
- Single, consolidated view of the converged network
- Scalable and reliable for growing networks

# Mobile Multimedia Services

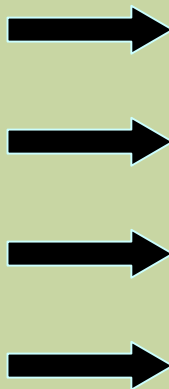


# Computing Utility Real By 2005

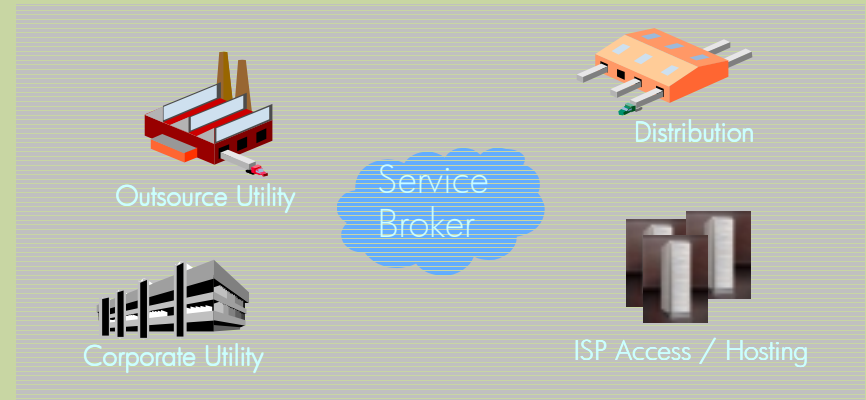
The Consumer needs...



- Services on Demand
- Instant Gratification
- Intuitive Interaction
- Privacy



The Utility must provide...



- Continuous service availability
- Click-time response
- Ability to rapidly create new integrated services
- Encryption, Authentication

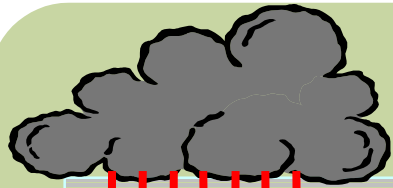
# 5-Year Vision

## *Key Trends From Now to 2005*

- Aggregation of computing will occur at multiple levels for services and data exchange.
  - Analogous to what voice telecom companies did in the past.
  - Single high bandwidth spigot into home for all “e-Services”
    - ▼ Personal all digital “VCR” for entertainment
    - ▼ PC for browsing, messaging, buying
    - ▼ New wide range of consumer devices such as Interactive Gaming
    - ▼ Phone integrated with other services
- Portals and Electronic Malls become commonplace



# XSP e-Service Data Center



T1 to OC3 from multiple ISPs

Access (Infrastructure)

Router

Level 3 Switch

Intrusion Detect.

DNS

Load Balancer

Reverse Cache

Wireless GW

Authentication

VPN GW

## Basic ISP e-Services

NNTP

SMTP

POP3, IMAP

News

E-Mail

News  
"e-Service"

e-Mail  
"e-Service"

Other  
e-Ser.

## Hosted Applications (e-Services)

Apps.  
Cust. A

Apps.  
Cust. B

Apps.  
Cust. C

Apps.  
Cust. N

Firewall

Firewall

Firewall

Firewall

Load Bal.

Load Bal.

Load Bal.

Load Bal.

SSL Web

SSL Web

SSL Web

SSL Web

App. FE

App. FE

App. FE

App. FE

App. BE

App. BE

App. BE

App. BE

RDBMS

RDBMS

RDBMS

RDBMS

Firewall

Operations

Operations  
Management

Advertising  
Management

User  
Authentication

RDBMS

RDBMS

# E-serviceCenter

## Attributes

Continuous E-service **Availability**

Capacity-**On-Demand**

Instant Global **Connectivity**

Total **Security**

Flexible End-to-End **Management**



The Internet changes traditional data center definitions



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