IMS Webcast



Creating value
through true convergence™

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Lucent Technologies
Bell Labs Innovations

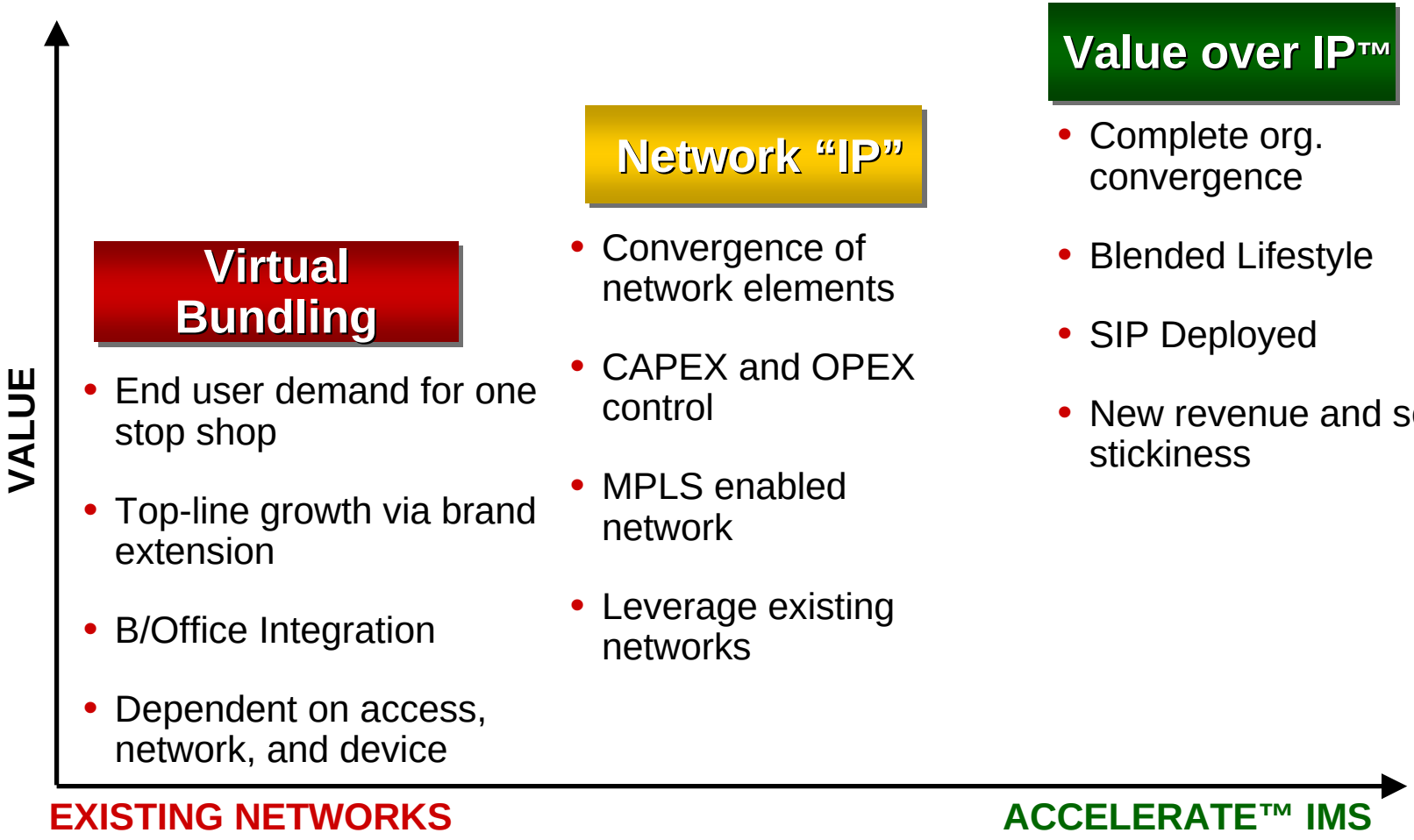
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Agenda

- Driving Convergence
- IMS Architecture and Positioning
- Customer Successes
- Convergence Portfolio
- Blended Lifestyle Services
- Summary

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Convergence Market Trends



Value Over IP™ Is the Ultimate Differentiator for Service Providers

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Industry Response:
IP Multi-Media Subsystem (IMS)

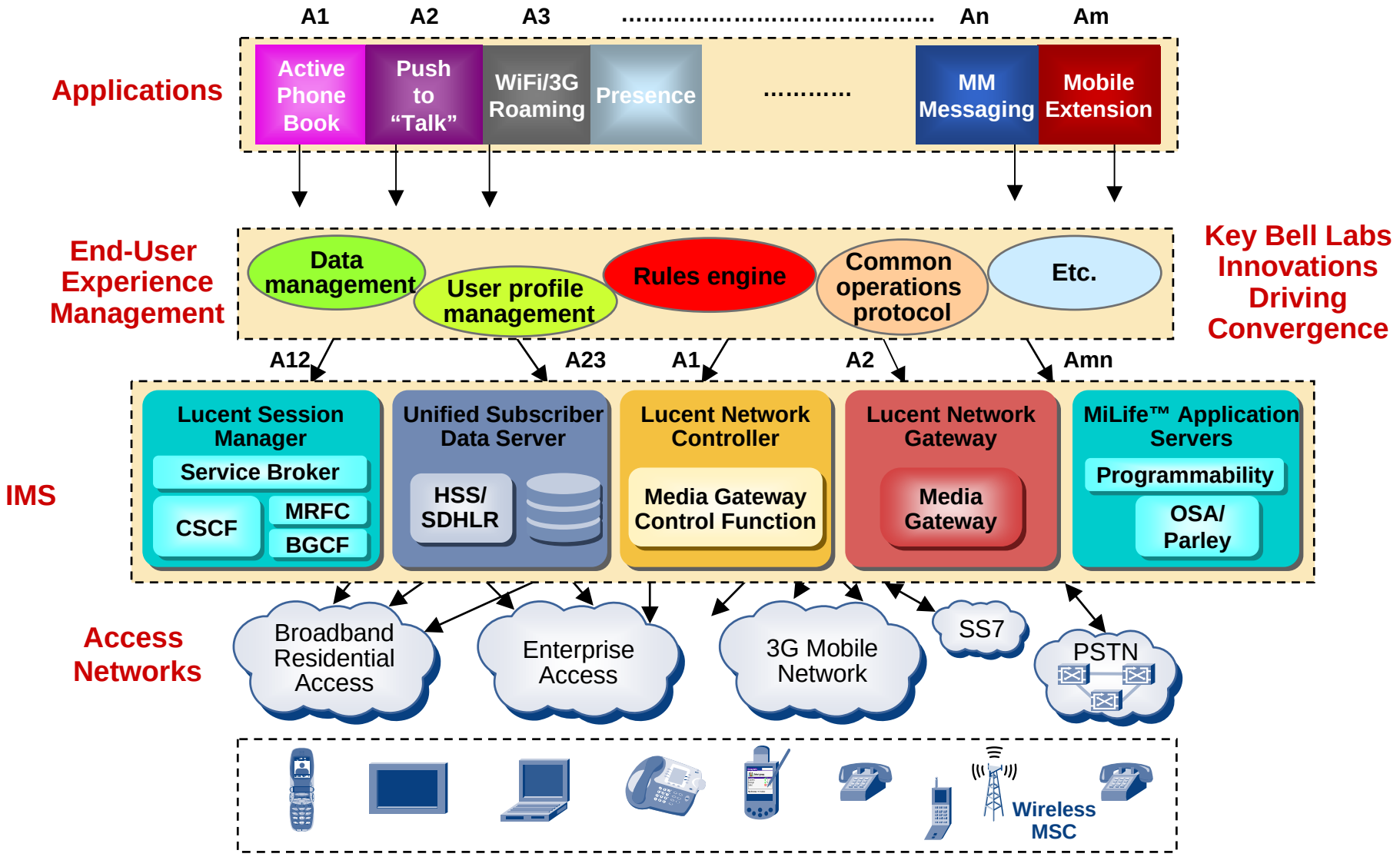
Access Anytime, Anywhere, Any Device

- IP-based multimedia and telephony core network; access-agnostic
- IMS is defined by industry standards organizations
  - 3G Partnership Project
  - IETF (internet) protocols, e.g. SIP, VoIP
- Standardized interfaces between applications, network layers, and back-office systems
- Same framework for any kind of access (wireless or wireline) and any kind of traffic – VoIP, data, multimedia
  - Supports IP sessions over Ethernet, cable, DSL, 802.xx, 3G/2G

***Business implications*: IMS cost-effectively enables service providers to offer lifestyle services, positioning the operator to "own" the subscriber regardless of how they access the network**

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Lucent's Enhanced IMS Architecture



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IMS Competitive Positioning

	Lucent	Ericsson	Siemens	Nortel
Single *Session Manager across Wireline/Wireless*	✓	X	X	X
Single *Media Gateway across Wireline/Wireless*	✓	X	X	X
Single *Universal Subscriber Database across Wireline/Wireless*	✓	X	X	X
Service Enhancement Tools	✓	X	X	X
Complete End-to-End Solution	✓	X	X	X

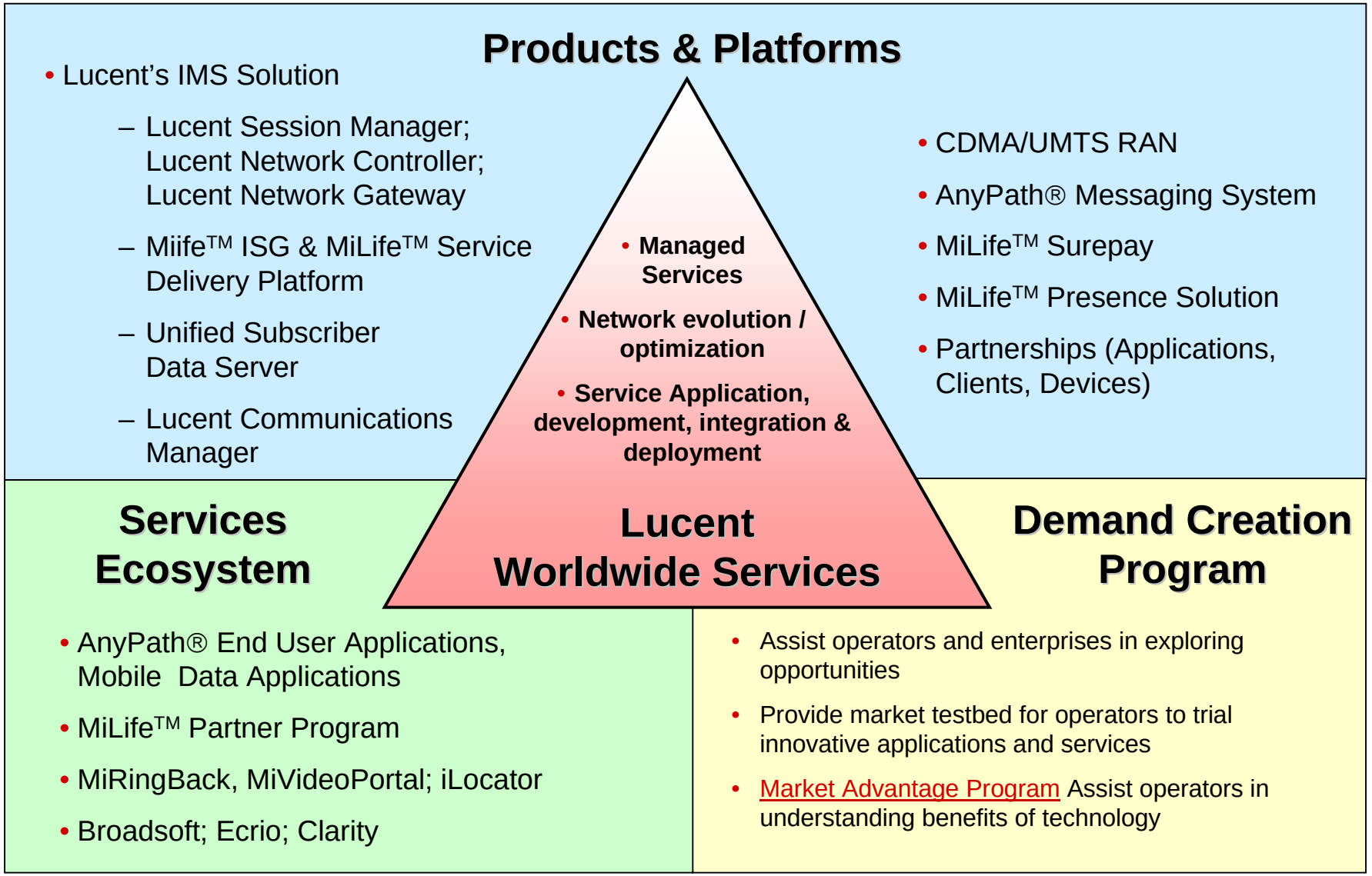
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IMS Customer Successes

- Sprint
  - Value: $1.5B
  - Lucent is the only vendor to provide an IMS solution for their network rollout
  - Sprint will be able to introduce new VoIP and multimedia services that can be delivered across mobile and wireline networks
  - IMS equipment provided includes Lucent Network Controller, Lucent Network Gateways, and the Unified Subscriber Data Server
- mmO2
  - Manx Telecom, on the Isle of Man, will launch commercial 3G UMTS network incorporating HSDPA as well as Lucent's IMS solution in the summer of 2005
  - IMS equipment provided includes Lucent Network Controller, Lucent Network Gateways, and the Unified Subscriber Data Server
- Shandong Unicom
  - Shandong Unicom plans to offer VoIP services to residential users, and VoIP and IP Centrex services to enterprises.
  - IMS equipment provided includes the Lucent Network Controller and Lucent feature servers.

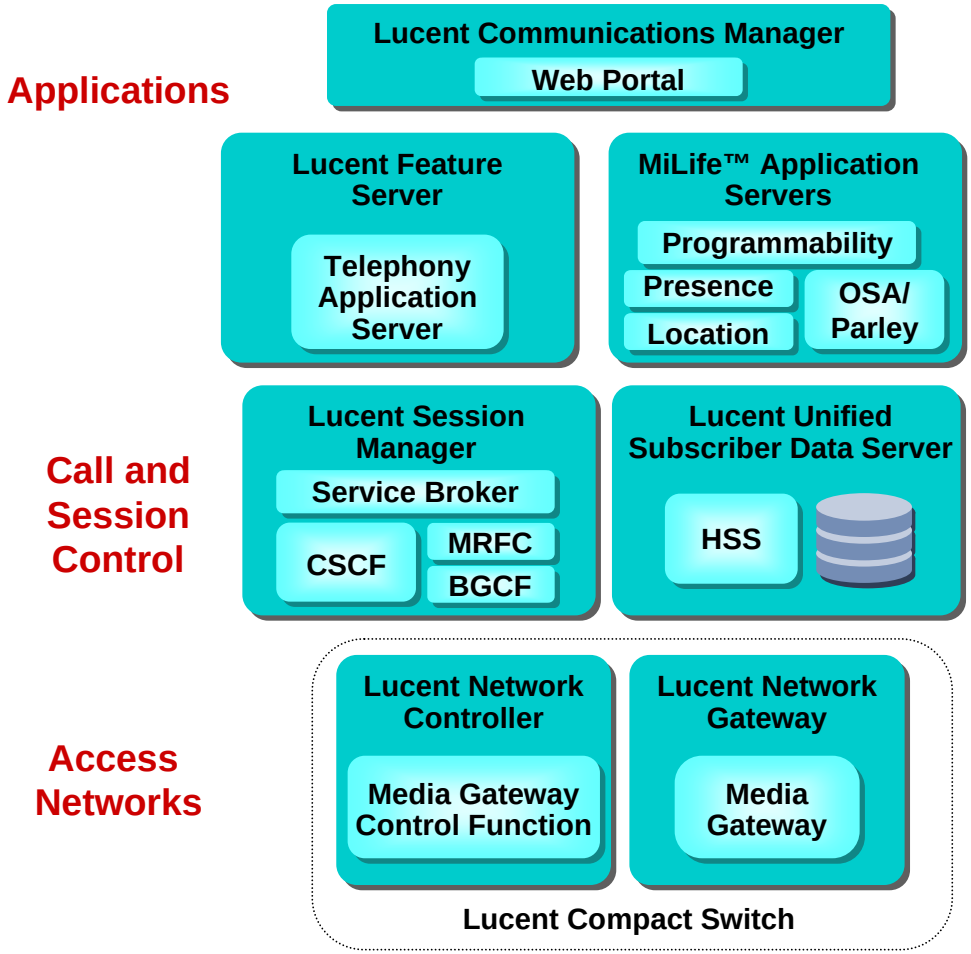
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Lucent's Convergence Portfolio

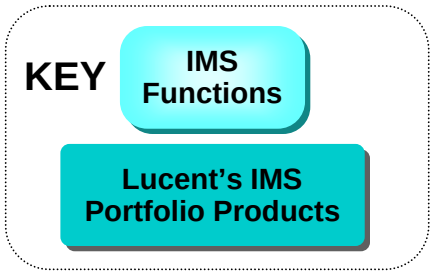


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Mapping Lucent's Portfolio To The 3GPP IMS



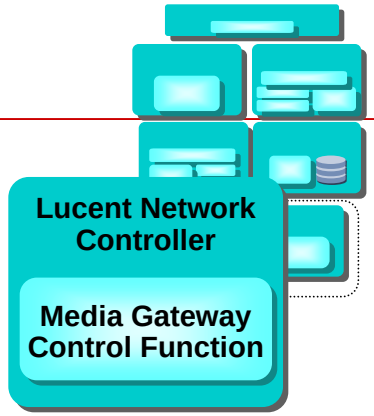
- Applications can be provided in common pools, or separately
- Call and Session control provides coordination or synchronization as required
- Flexibility of IMS core to coordinate end user experience
- Multiple access networks can be used, supporting multiple clients and endpoints



Value at Every Layer of the IMS Architecture

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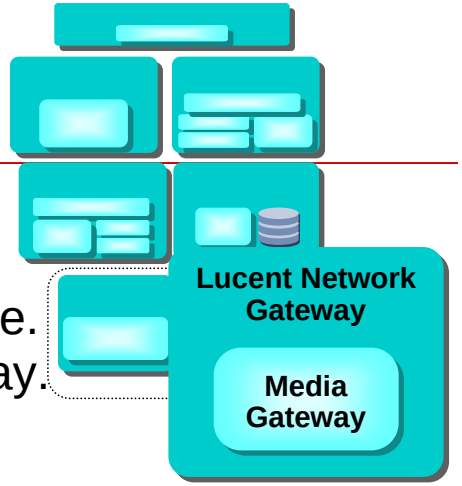
Lucent Network Controller



- Overview
  - Control all circuit to circuit, and circuit to IP voice connections via a single element.
  - Transform public networks to a Voice over IP network.
- Benefits
  - Deploy media gateway controller to support both wireline and wireless service
  - Maximize return on investment with plug-in scalability for up to 8 million Busy Hour Call Attempts
  - Build media gateway control functionality as a geographically redundant standalone chassis or into either Lucent Network Gateway chassis or Lucent Session Manager chassis
  - Optimized for Lucent Network Gateway and Lucent's Universal Gateways, also works with any standards based network gateway

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Lucent Network Gateway



- Overview
  - Bridge any Mobile and/or Fixed Network to a Packet Core. Industry leading high density voice over IP media gateway.
  - Lucent Network Gateway is deployed in over 50 North America Networks (mix of both wireline and mobile carriers)
  - Lucent Network Gateway enables network transparency by bridging IP wireless, wireline and WiFI endpoints to the PSTN and PLMN
- Benefits
  - Maximize return on investment; plug-in scalability up to 37,600 IP ports
  - Ensure reliable services with six nines availability, carrier grade geographic redundancy and emergency standalone capability
  - Choose any standards based Media Gateway Controller
  - Engineer single chassis to support Lucent Network Controller, Lucent Signaling Gateway and Lucent Network Gateway products

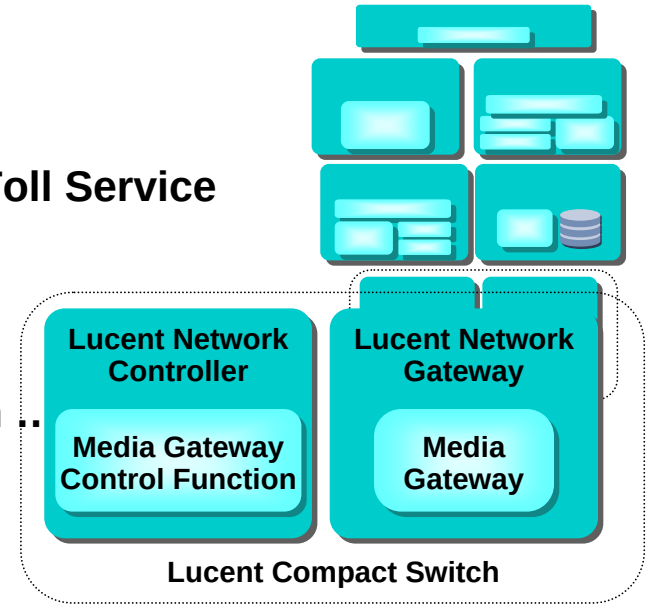
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Converged Network Solution Benefits

Packet Tandem/GW-MSC/Fixed Endpoints

Lucent Compact Switch

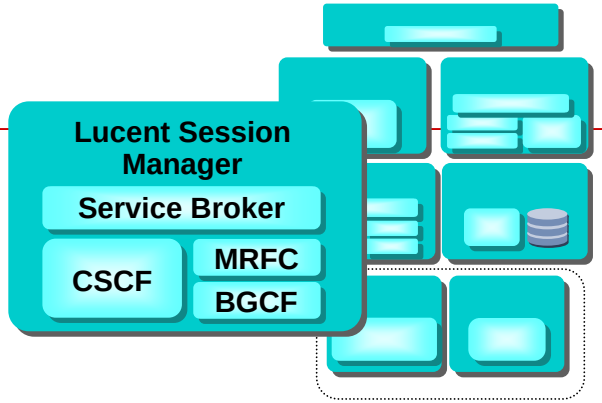
- **Deliver Local, Tandem Gateway MSC, or Toll Service via a self-contained chassis**
- **Reliable Next Generation Switching platform**
- **Can migrate to a distributed configuration .. Lucent Network Controller and Lucent Network Gateway**



- Benefits
  - **Improve operational efficiency with a converged voice and data network**
  - **Maximize return on investment with plug-in scalability for up to 500,000 subscribers**
  - **Deploy as a point based or geographically distributed solution**
  - **Leverage full investment in a SIP based Multi-Media Network**

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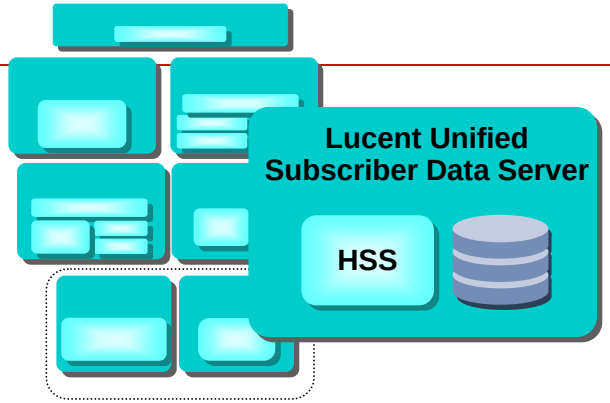
Lucent Session Manager



- Overview
  - Delivers service broker and session control functions as well as hand-offs between access methods
  - Brokers interactions between simultaneous voice, video and data communication sessions for a single user
  - Standards based for both Mobile and Wireline Service Providers
- Benefits
  - Simplify subscriber experience through single password, buddy lists and preferences across all voice, video and data applications
  - Leverage presence, context and location to enrich communications
  - Build transparent service offering for all wireless and wireline next-gen and traditional subscribers
  - Can be used with existing Lucent Network Controller and Lucent Network Gateway to migrate to IMS Network/Services

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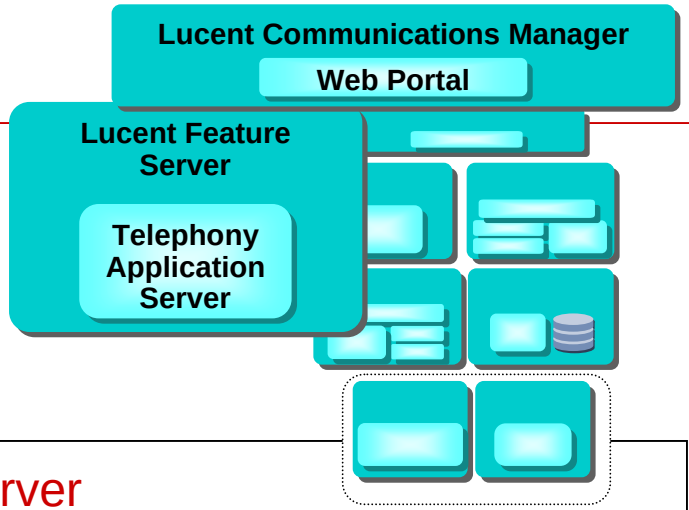
Lucent Unified Subscriber Data Server



- Overview
  - Bell Labs innovations provides unique data management
    - Simple: single point of data access across different access networks
    - Seamless: subscribers build personal profiles and service preferences that follow them from one network or service to the next.
    - Portable: provide subscribers with access to voice and data services, etc. when roaming outside the home network.
    - Personal: A rules engine that acts as a policy decision point
- Benefits
  - Manage subscriber location, identification, security, and profile information in a single database
  - Maximize return on investment - scalability up to 20 million subscribers
  - Integration of myriad databases that keep track of each subscriber's location, choice of device and service preference within each network

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Lucent's Web Portal and Telephony Applications Servers



Lucent Communications Manager

- **Deliver new blended lifestyle services via any access interface**

- **Benefits**
  - **Increase Wallet Share thru bundling of conferencing, presence, email, voice mail and collaboration services**
  - **Maximize subscriber control and productivity through teleconferencing, single buddy lists, find-me/ follow-me services**

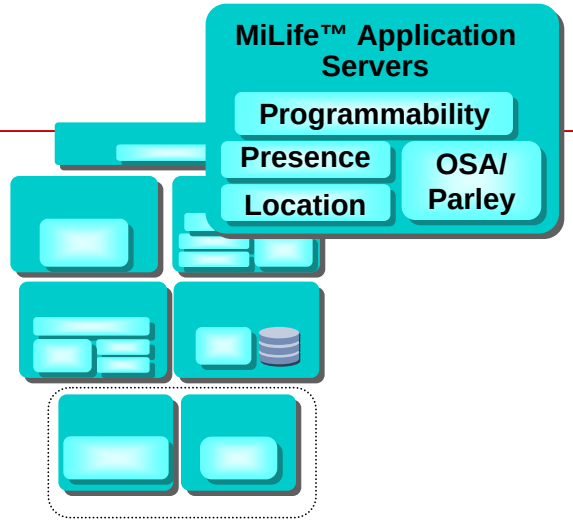
Lucent Feature Server

- **Basic and enhanced telephony services to any SIP, IP or legacy subscriber**
- **Transform public networks to Voice over IP**
- **Transform any enterprise to a VoIP network.**

- **Benefits**
  - **Build UMTS MSC on next generation technology**
  - **Ensure high reliability and availability with six nines availability, carrier grade geographic redundancy**
  - **Deploy in a hosted, managed or premise based VoIP solution**
  - **Reduce expense via single system admin**
  - **Integrates with the Lucent Communications Manager enhancing end user experience**

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MiLife™ Application Server



- Overview
  - Deliver new blended lifestyle services via any access interface
  - Programmability taken to a new level
- Benefits
  - Increase revenues with prepaid applications supporting key services such as text messaging, voice and e-commerce
  - Lead market with flexible rating, tariff, discount, promotions and Class of Service plans
  - Maximize return on investment with scalability for up to 5 million subscribers
  - Prevent security breaches with OSA/Parlay
  - Ensure high reliability and availability with six nines availability

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Driving Customers' Willingness to Pay

- Presence and location (including identity/ security / policy management functionality/ subscriber data management)
- Unified messaging (IM, PoC, short video service, multimedia video services and SIP-enabled messaging services)
- Access independent telephony services (includes IP-PBX, IP-Centrex, VoIP, VoWLAN, GSM features…)
- Video communications (includes instant video messaging, video telephony, video conferencing)
- Integrated billing (includes pre-paid, post paid, micro-billing)

MiLife Presence Solution, MiLife ISG, Unified Subscriber Data Server

AnyPath Messaging Solution & Ecrio partnership

HSDe 3G/WLAN integration solutions and Lucent Network Controller/ 3GMSC

Evaluating strategic partners

MiLife SurePay Solutions Suite

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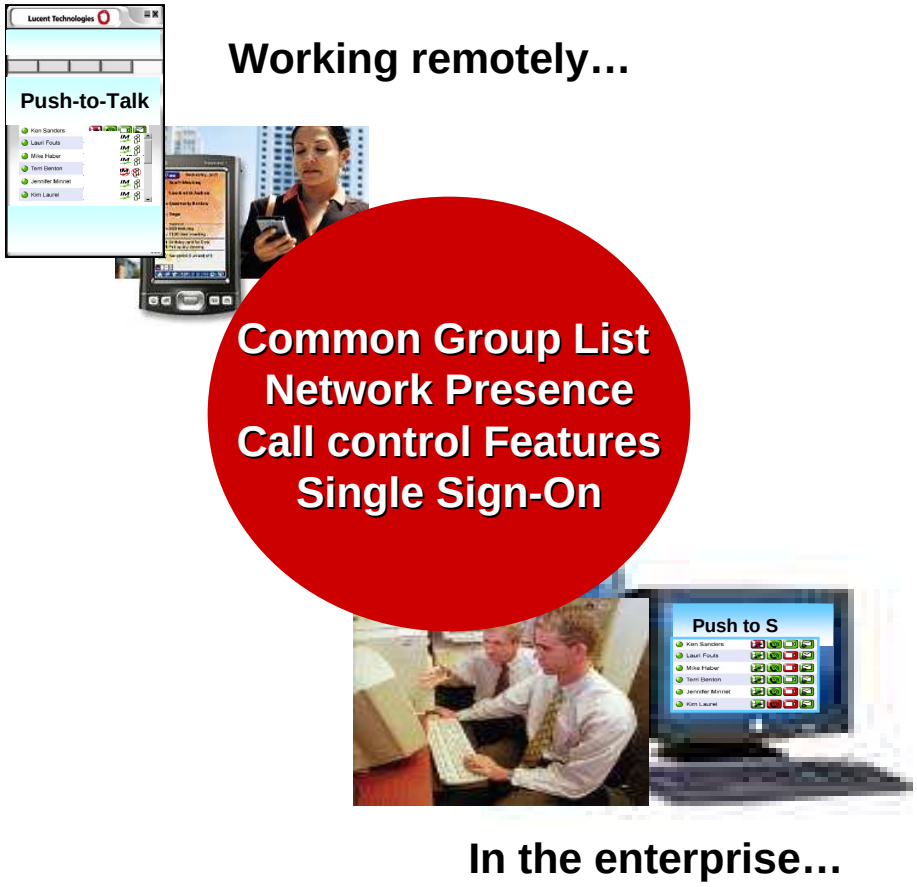
IMS Blended Services

Delivering Value to End Users

- The Young Adult Experience
  - Keep track of gaming buddies availability for a game
  - Talk to gaming buddies during play
  - Concurrently view movie trailers while talking to a friend to decide which one to see
- The Working Parent Experience
  - Filter incoming calls and messages based on time of day to avoid interruptions
  - Push-to-talk to all the family to let them know when you'll be home or if they need anything from the store while you're there
  - Show them a picture of an item at the store to see if it's the exact thing that they need
  - Tune into the "nanny-cam" to make sure all is ok with the kids

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Blend ‘Push to Speak’ for both wireless and wireline with Active PhoneBook…



Service Description:

- Extend PTS services to fixed and mobile end points
- Stickiness via Service Provider market power (Contact List & Network Presence Information)

Competitive Advantage for the Service Provider

- Converged Service that enhances the wireless value proposition
- Enables communities / viral marketing model

End User Benefits

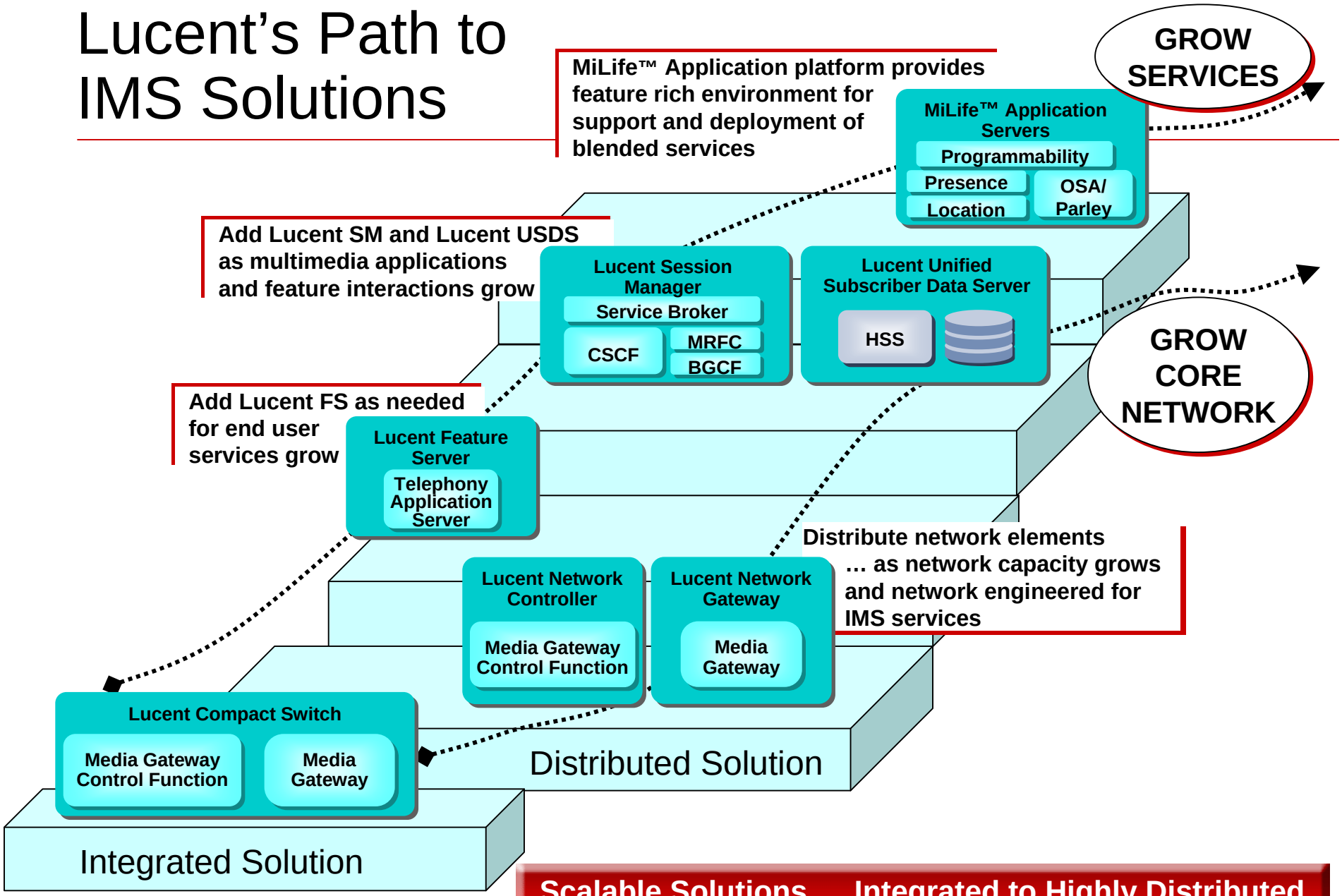
- Enhanced communications experience
- Larger buddy list (not just mobile friends & co-workers)
- Productivity gains for enterprise

IMS enhanced with Bell Labs Innovations…

services that connect users with any device at any location

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Lucent's Path to IMS Solutions



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Creating value through true convergence

- Lucent ‘s IMS vision will create true value for service providers and end users by addressing blended services requirements of users
- Bell Labs innovations manage the end user experience in a way that is simple, seamless, secure, personal and portable
- Lucent provides the industry’s most complete IMS portfolio enhanced by Bell Labs innovations
- Our convergence thought leadership, portfolio and network integration capabilities enable us to become the trusted partner of our customers

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