Lucent's Next-Gen Voice Strategy

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Janet Davidson

President, Integrated Network Solutions

Lucent Technologies

Lucent Technologies
Bell Labs Innovations

Integrated Network Solutions Overview

- Revenue has stabilized, with sequential gains in each of the last three quarters
- Data revenue increased 22% in Q4-FY03, and optical revenue rose 30%
- Operating expense fell and gross margin increased
- Positive segment income of $138 million in Q4-FY03

Data Networking	Convergence Solutions	Optical Networking	Access	Software
✓ GX550 ✓ CBX500 ✓ PSAX ✓ Juniper Partnership	✓ 5ESS/5E-XC ✓ Lucent Softswitch ✓ iGen Compact ✓ iMerge ✓ EBS (Enhanced Business Svcs) ✓ AnyPath Messaging	✓ LambdaUnite ✓ Metropolis Family (DMX, MADM) ✓ LambdaXtreme ✓ OLS400/800/ 1.6T ✓ Metro EON+	✓ Stinger DSLAM ✓ V-16 IP DSLAM ✓ AnyMedia ✓ APX ✓ Max TNT	✓ Navis ▫ iEngineer ▫ iProvision ▫ iAssure ✓ Vital Suite

Wireline Market Trends And Dynamics

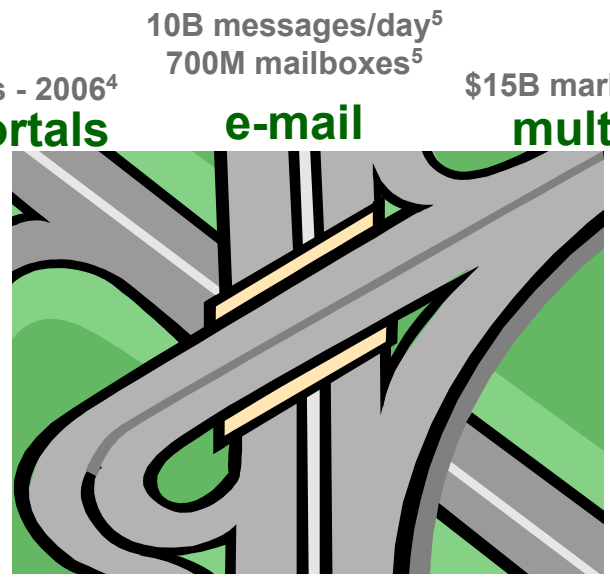
- **2004 market flat overall with pockets of opportunity**
  - Metro optical
  - Voice over IP (VoIP)
  - Broadband access
- **Within each product area, service providers are transitioning from legacy to next-generation architectures**
  - Circuit switching to VoIP
  - Optical SONET/SDH to MSPP+OCS
  - ATM and IP to MPLS
  - Narrowband to broadband access
  - Multiple Operations Support Systems (OSS) to integrated Network Operating Software (NOS)
- **Service providers focusing spending on leveraging and evolving existing assets**
- **Regulatory environment continues to influence spending, especially in U.S.**
- **Macroeconomic malaise and substitution from wireless and broadband increasing focus on operational efficiency**

Integrated Network Solutions Strategy

- **Maintain focus on needs of large service providers**
  - Direct channel to “Top 50” customers
  - Leverage global business partners to reach others
- **Enhance network capabilities**
  - Optical networking
  - Convergence/VoIP solutions
  - Data networking
  - Broadband access
  - Network operations software
  - Messaging applications
- **Invest in Convergence Technologies**
  - IP/MPLS
  - Unified Softswitch for wireless and next-gen wireline endpoints
  - Multiservice Provisioning Platforms (MSPP)
  - Broadband Access
  - 5E-XC™
  - Network Operations Software

Forces Driving Next-Gen Voice/Data

- **Subscribers want access to communications services from many places…**
  - Home, office, or on-the-go: *mobility isn't just wireless voice anymore*!
- **…from several devices…**
  - Telephones, PCs, mobile phones, PDAs
- **…without needing separate accounts**
  - Single sign-on, common contacts, and "access-aware" information delivery



Sources

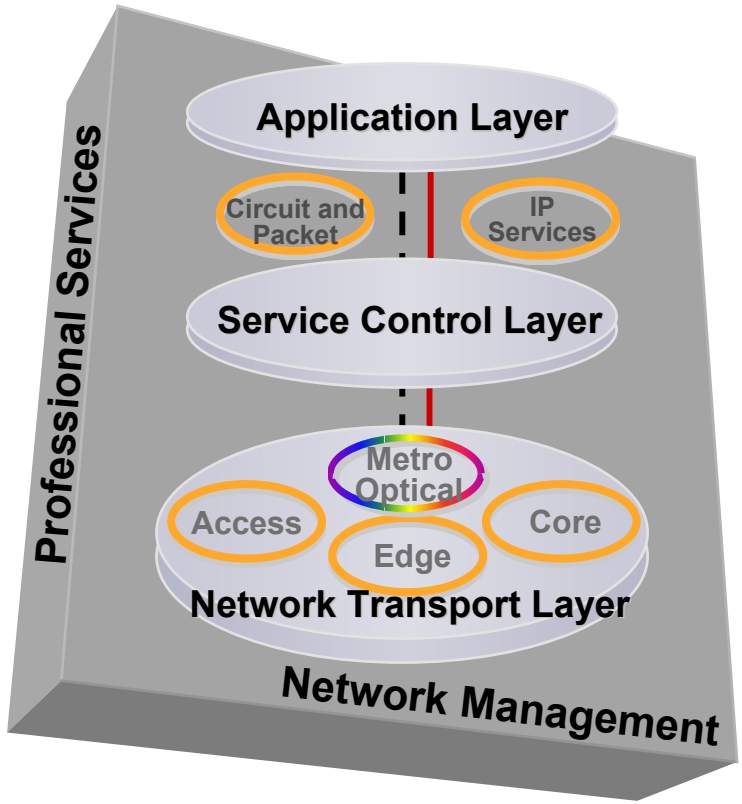
1. Lucent research
2. GSM Association
3. Radicati
4. UMTS Forum
5. IDC, June 2001

Subscriber Needs Drive Next-Gen Networks

Market-Focused VoIP Solutions

Generate new revenue while lowering operations costs

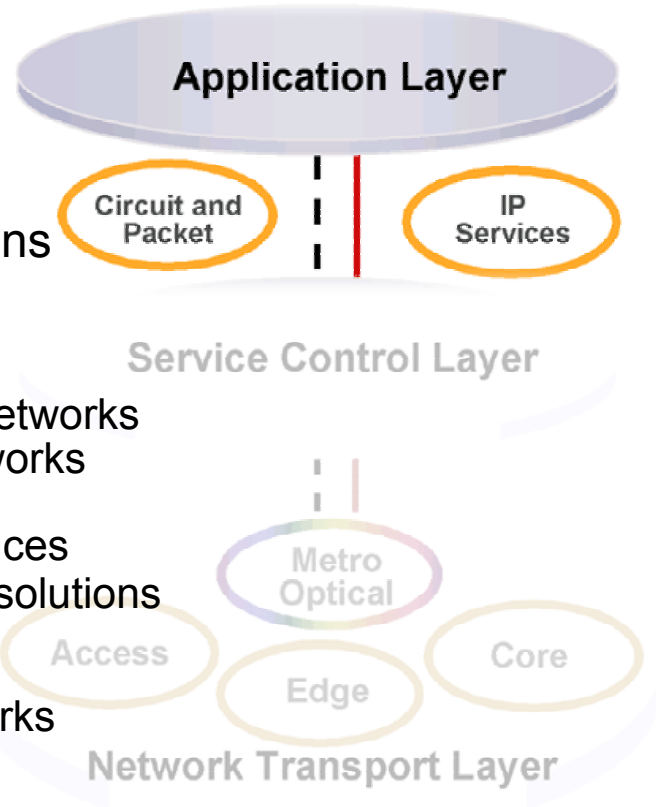
- Next-generation applications solutions
- VoBB residential/business solutions
- Service provider trunk solutions
- Local network solutions
- Wireless solutions
- Enterprise solutions



VoIP Solutions For Next-Gen Networks

Systems For The Application Layer Drive Value Top-Down

- **AnyPath® Messaging** - Leverages and extends current wireline/wireless unified communication applications into IP networks
- **EBS** - Enhanced Business Services web portal software for deploying next-generation applications
- **PacketIN** Application platform with service enablers:
  - SDHLR Distributed HLR for wireless 3G mobile networks and subscriber database for converged all-IP networks
  - SIP server SIP application server for VoIP
  - eMRS Media server for enhanced telephony services
  - Feature Suite Routing and local feature software solutions
- **MiLife™ Solutions Suite**
  - SurePay® – Prepaid platform for converged networks
  - ISG – OSA service mediation gateway
  - Enhanced VPN – extends VPN to mobile users
  - Short Message Service Center (SMSC) – supports short messaging on wireless



NEW **Solution Partner Program** – A forum for enabling the rapid development of 3rd party applications and end-to-end solutions

Any Application, Any Endpoint, Any Network

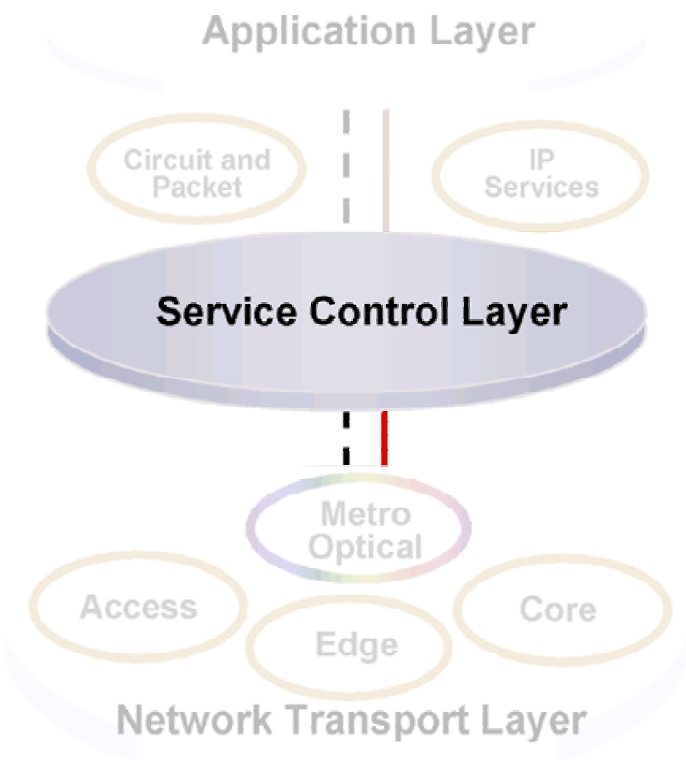
Systems For Call/Session Control Layer Deliver Value At The Core

- **Lucent Softswitch** – Unified softswitch delivers advanced next-generation services across wireline and wireless (CDMA, UMTS, and complementary WiFi) networks

- **5E-XC™** – Triple the capacity; interface to IP; evolution to softswitch control

- **Flexent® Mobility Server** – Call control for CDMA and TDMA wireless

- **iGEN™ Compact Switch** "Switch-on-a-pack" architecture for independent operating companies, CLECs, cable companies, PTTs



Adding Next Generation Call Control Can Leverage And Evolve Current Network Assets

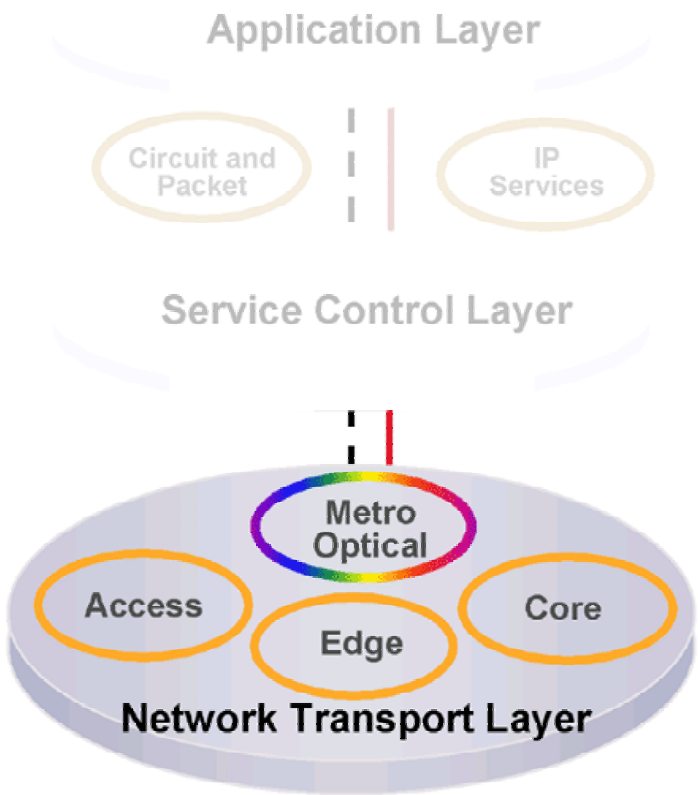
Transport And Access Layer Requires Flexible Gateways And Security Systems

- **Flexible VoIP Gateways**

NEW

  - **Smart Media Gateway** – Provides VoIP functionality for the **AnyMedia™ Access System**, a next generation access platform
  - **MaxTNT & APX Universal Gateways** – PSTN VoIP Trunk Gateways; enabling any service on any port
  - **iMerge ™ Gateway** – Delivers IP voice services to enterprises and residential users

- ***PacketStar*® PSAX Multiservice Media Gateways** - Supports voice over packet services for a broad range of ATM multi-service applications
- **Flexent® Mobile Access Product Line** – Radio access solutions for CDMA2000 and UMTS mobile networks provide superior capacity, coverage, and QoS options for real-time VoIP applications like Push-to-Talk
- **Lucent VPN Firewall** – Secures all networks from road warriors to enterprise (Bricks, IPSec Client, SMS)
- **AccessPoint™ Routers** – Secure IP service routers



IP Enabling Transport, Without A Forklift Upgrade

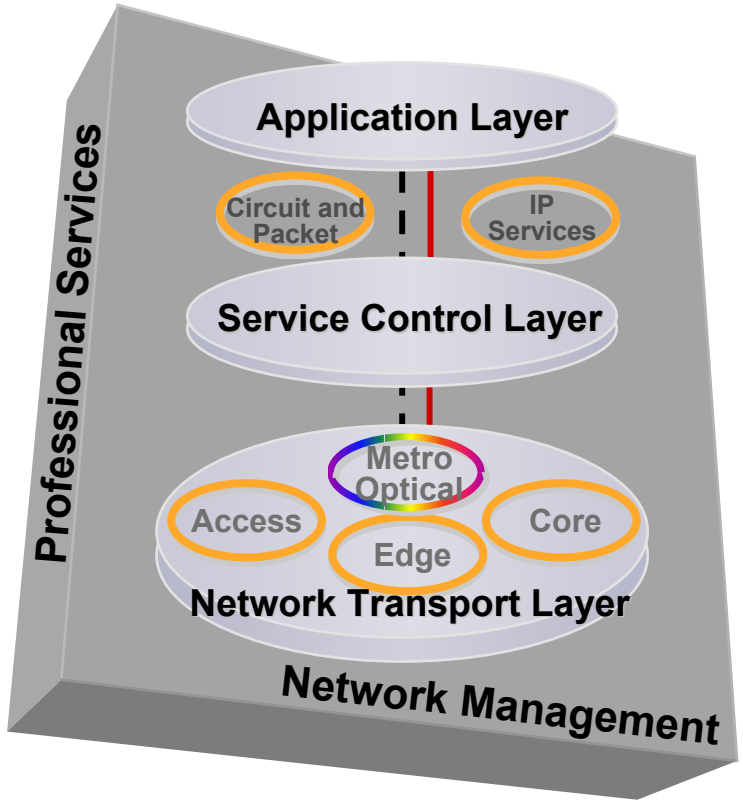
Network Management And Professional Services Surround Lucent Solutions

Navis iOperations Software

- Integrated solution for end-to-end service creation, provisioning, monitoring and service quality management over multi-vendor, multi-technology networks
  - iAssure ensures QoS and SLAs across PSTN and IP networks
  - iProvision streamlines VoIP operations with flow-through provisioning and activation

Lucent Worldwide Services (LWS)

- LWS VoIP consultants can plan, design, integrate, maintain, and operate VoIP networks, speeding time-to-market and mitigating risk
  - VoIP Readiness Service
  - Network Operations & Planning Service
  - Deployment Services
  - Security Assessment Services



ServiceReady™ VoIP Solutions Speed Deployment And Mitigate Risk

Embedded Base Ready To Be IP-Enabled

5ESS Switch	6,500 switches deployed globally with 300 million ports
Lucent Softswitch	8 carrier networks globally
AnyPath Messaging	10 million mailboxes deployed worldwide
EBS Multimedia Portal	Award winning communications portal with 8 carrier trials (2003 Winner: SuperQuest Supercomm, ICCM, TMC Telephony)
AnyMedia Access System	39,000 systems shipped, 4.5 million voice lines, 1.2 million ADSL ports
Universal Gateways	30 million remote access ports, 4 million VoIP ports
PSAX	Carrier Deployments in over 20 Countries globally
iNavis Software	1,100 Carrier and enterprise customers spanning wireless and wireline networks

Selected Lucent VoIP Trials And Deployments

- Trial in China addressing voice over broadband and enterprise services
- Wireless/wireline converged solution in North America using AnyPath Messaging
- Evolving 5E-XC and AnyMedia assets for local network solutions in the U.S.
- Centrex VoIP/EBS architecture in the U.S.
- Wireless carrier deploying voice over broadband and enterprise services in the U.S.
- Trial in Europe voice-enabling a Universal Gateway network with Lucent Softswitch

INS Summary

- **INS product portfolio focused where customers are investing**
  - Metro optical
  - Convergence/VoIP
  - Data networking (IP/MPLS core, edge with Juniper Networks)
  - Broadband access
  - Network operations software
  - Messaging, Web portal, PacketIN applications
- **Competitive products surrounded by differentiated software, services capabilities**
  - Unmatched understanding of embedded base
  - Next-Gen network management systems
  - Most extensive services capability to manage and integrate service provider networks
- **Long-term relationships and embedded base with leading service providers worldwide**
  - Large embedded base of circuit, packet, optical network systems
  - Leverage software, services expertise

Lucent will be a major player in Next-Gen Networks