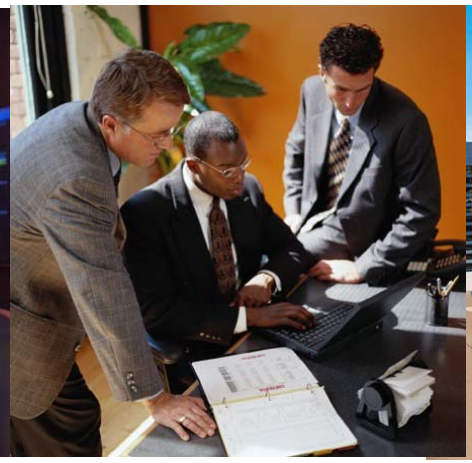
Gaining Traction with Professional Services



Dan Bigbie

Vice President, Professional Services

December 3, 2003

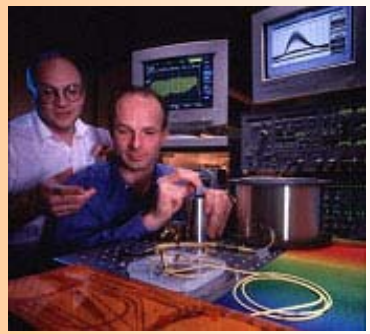
Lucent Professional Services Traction: on Experience

Heritage of interoperability for more than 100 years





More than 1,600 LWS consultants and Bell Labs engineers



Putting Bell Labs innovations to work to solve customer problems

Gaining Traction with an Expanded Resume

- Customers
  - New (e.g., O2, China Netcom, Unicom Horizon, Qwest)
- Competencies
  - New services to existing customers







FAA









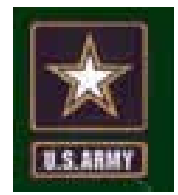




Defense Supply Services









China Unicom





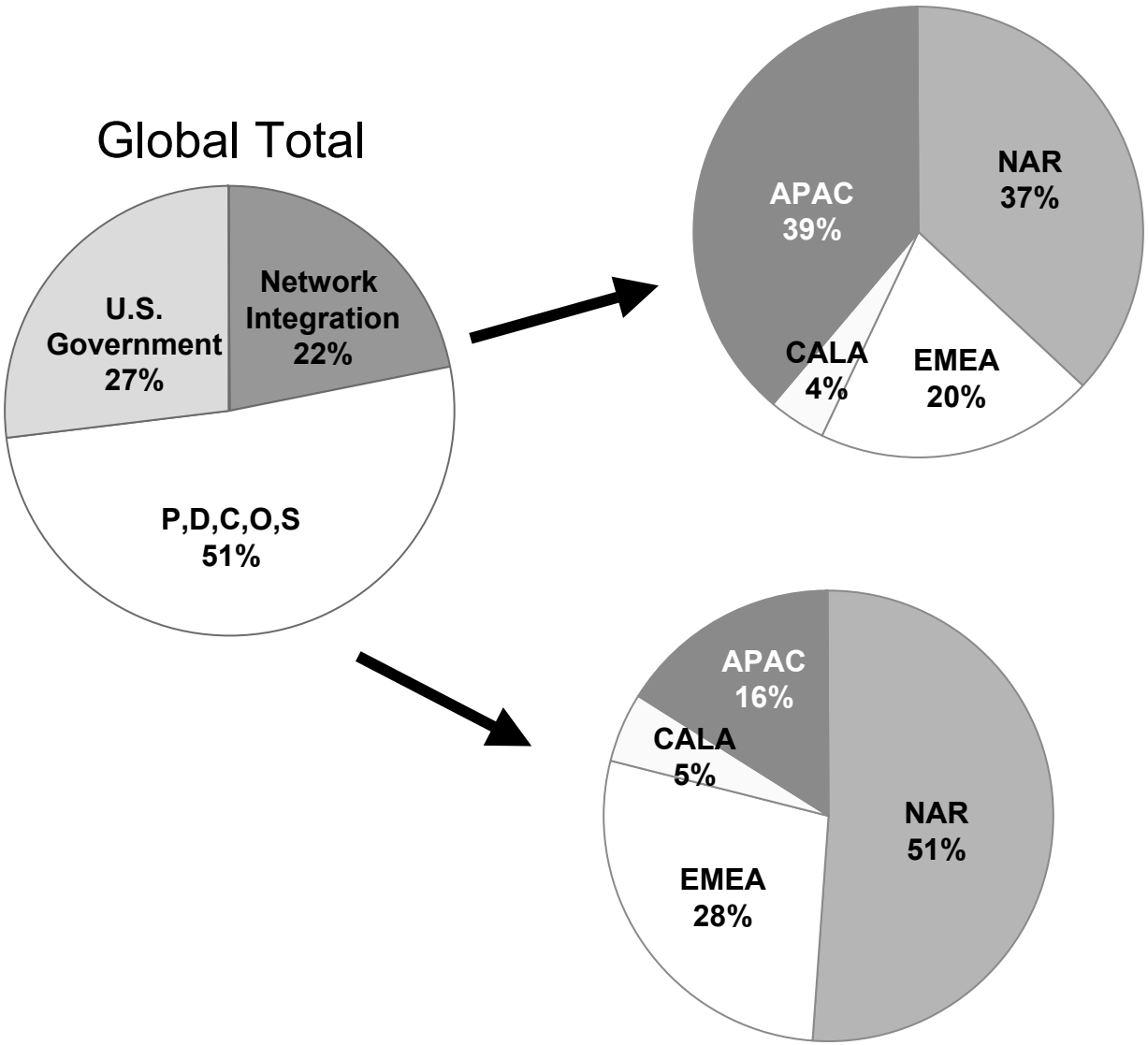








Professional Services
2004 Revenue Diversification



Network Integration

Planning, Design, Consulting, Optimization, Security

Lucent Professional Services Solves Customer Problems



Key Professional Services

- Reliability and Security Consulting
- RF Optimization and RF Design
- Network Planning and Design
- Network Analysis and Optimization
- RAVS Wireless Reality™
- Network Integration and Migration
- OSS/BSS Integration
- Applications Integration
- Operations Analysis and Optimization
- Project Management

LWS Offers

- Network Security
- Network Optimization
- Inventory Management
- Multivendor Deployment and Integration
- Revenue Generation

Traction in Government



- **Progress**
  - $100 million in multi-year contracts
  - Increased Government investment
  - Bell Labs consulting – classified and non-classified
  - Homeland Security offers
  - Major player as Subcontractor
  - Increasing presence as Prime Contractor

- **Opportunities**
  - Capturing increased government spending
  - Systems integration opportunities
  - Continuing to leverage Bell Labs
  - High value, low cost competitive solutions

Gaining Traction with Service Providers



- **Progress**
  - Customers are using Consulting Services to solve difficult business problems
  - Year-over-year growth
    - Security - triple digit growth
    - Optimization - 65%
    - Planning and design – 67%
  - Growing demand from service providers to be their network integrator
  - Best-in-Class Customer Satisfaction metrics

- **Opportunities**
  - Growth in five key areas: Reliability and Security Consulting, Network Planning, Design and Optimization, Network Integration and Migration, Applications Integration, OSS/BSS Integration
  - Customers need optimization services
  - Leveraging Bell Labs

Applying Our Network Expertise to Wireline Customers' problems

Network Optimization

- Network Planning and Design
- Network Analysis and Optimization
- Inventory Management

Applying our network knowledge to lower your Opex

Multivendor Network Integration

- Network Integration
- Migration and Network Realignment

Applying our network knowledge to evolve your multivendor network

Multivendor Software Integration

- Applications and OSS/BSS Integration

Using our experience in network software to help you offer new services and make your network more manageable

Network Security and Reliability

- Reliability and Security Consulting

Comprehensive assessment by the world's leading experts

Asian Service Provider – Operations Optimization

- More than 60% in OpEx savings identified through provisioning optimization analysis
- Reduced provisioning time

U.S. Army

- Helped to modernize the Army's telecom data infrastructure in US and Korea, supporting mission-critical applications through a new integrated, high-speed campus area network handling 5,000-20,000 users
- User trouble tickets decreased by 90%, resulting in significant cost savings

Large U.S. Carrier – OSS/BSS Integration

- Helped consolidate two companies' different operating environments, OSS architectures and capabilities, network architectures, and inventories. As a result, the Company is realizing a multi million dollar CAPEX and OPEX savings immediately.

U.S. Service Provider

- Saved 20% staff support time while reducing downtime and more quickly isolating and resolving troubles through operations optimization

Major European Carrier

- Benchmarked and reviewed more than 220 best practices across multiple customer internal organizations
- Identified potential for improved CapEx efficiency and averting several hundred million dollars in potential loss

Applying Our Network Expertise to Mobility Customers' Unique Problems



Network Optimization

- Network Planning and Design
- Network Analysis and Optimization
- Inventory Management

Applying our network knowledge to lower your Opex

Multivendor Network Integration

- Network Integration
- Migration and Network Realignment

Applying our network knowledge to evolve your multivendor network

RF Optimization

- RF Optimization and RF Design

Optimizing your RF Capacity and Performance by the inventors of cellular Wireless Networks

Revenue Generation

- Create new applications
- Integrate existing (multivendor) applications

Rapidly introduce new services for revenue growth and increased customer loyalty

Large Wireless Carrier – Inventory Management

- Automated and streamlined inventory management process, resulting in reduced capital expenditures and identified operating expense savings of $5M annually

O2 – Inventory Management

- Comparative benchmarking service,helps O2 optimize network performance and operating expenditures, and achieve greater revenues by delivering better services.

Large Wireless Carrier – Network Audit & Optimization

- Provided audit and optimization services for existing fiber optical network, as precursor to migrating to new fiber network, and identified operating expense savings of $2M annually

China Unicom – RF Optimization

- Increased coverage to 99% and capacity by 25% in in-service radio network using Bell Labs OCELOT® set of RF Optimization algorithms

Large Wireless Carrier – Revenue Generation

- To support an innovative rate plan, delivered an enhanced Mobile-to-Mobile Mapping Database that used Lightweight Data Access Protocol (LDAP) access to the M2M mapping information for quick retrieval leading to revenue generation and increased customer loyalty

Gaining Traction with Partners and Vendors



- Growing demand from equipment vendors to be their network integrator
- Growing alliances and partners
  - Current alliances include IBM GS, EMC, Accenture, Intel, Juniper, Cisco, Oracle, Granite Systems, Telica, Sonus,Sun
- New multivendor capabilities
  - Multivendor Experience Spans more than 100 Vendors and 450 Products
  - Spans the full breadth of technologies

Expanding Multivendor Credentials…



Cisco Cisco Certified InterNetwork Expert
- Cisco Certified Network Associate
- Cisco Certified Design Associate
- Cisco Certified Optical Specialist
- Cisco Certified Network Professional

Juniper Juniper Network Certified Internet Associate

Nortel Nortel Network Certified Switch Specialist

Ciena Core Director Augment*

Alcatel XYLAN Certified Switch Expert
- XYLAN Certified Switch Specialist

Microsoft Microsoft Certified Professional
- Microsoft Systems System Engineer

Industry certified Network +
- Certified Network Expert – Ethernet
- VTEL Board Certified Systems Engineers
- Certified Information Systems Security Professionals
- Information Systems Auditors
- CompTIA Network Plus
- Masters in Project Management Certification

Lucent Lucent Certified Technical Expert
- LCTE Frame Relay
- LCTE InterNetworking Associate
- LCTE Asynchronous Transfer Mode
- NavisCore
- Navis Xtend
- 5ESS

Nearly 60% of our staff holds at least one certification

More than one-third are Cisco Certified Network Associates

Bell Labs and Lucent Worldwide Services



Key Statistics

✓Four-fold increase in services-related research since 2002

✓20% of Bell Labs' researchers are collaborating with LWS – up from 3% two years ago

✓20% of Lucent's patents are services related

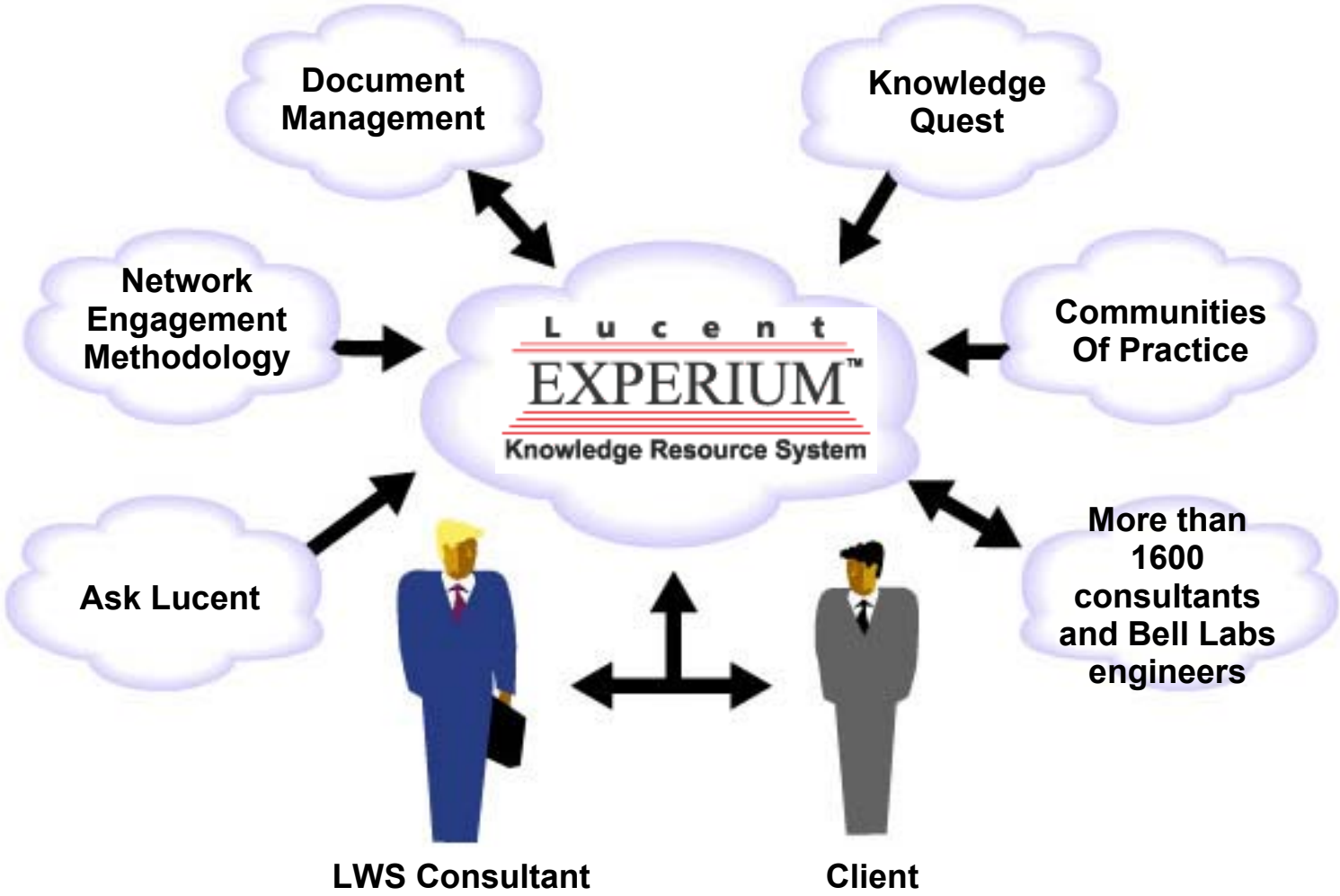
✓33% of LWS's Services Portfolio is built upon Bell Labs technology

✓More than 25 Bell Labs tools and technologies are under development for LWS

Results

- ***Continue and expand existing engagements:***
- ***Wireless RF Optimization Suite***
  - ***OCELOT®***
- **Records and Asset Verification Service**
  - ***NetInventory™ Auto Discovery tool***
- ***Develop new service offerings:***
  - ***ATM/SONET/MPLS Bandwidth Recovery***
  - ***Celnet Xplorer – 3G Measurement Suite***
- ***Explore potential future services:***
  - ***PatchInventory and IPv6***
  - ***E911 and iLocator***
- ***Bell Labs + LWS Customer Seminars***
  - ***Worldwide roll-out***

An LWS Consultant Brings Expert Knowledge of 10,000 Others



Summary



- Increasing penetration in key markets
- Strengthening multivendor capabilities
- Growing demand for role as network integrator
- Diversifying revenue geographically
- Expanding consultative services
- Enhancing and differentiating solutions with Bell Labs network know-how

Unsurpassed knowledge, people, solutions and experience