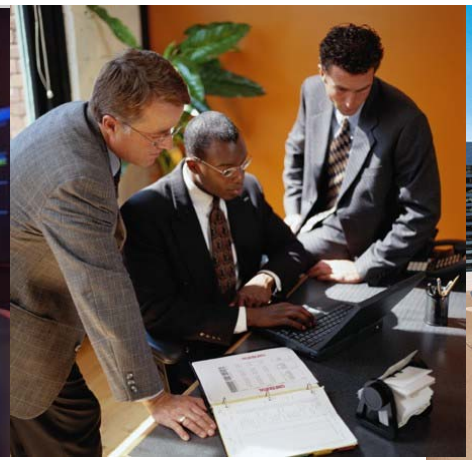
“Gaining Traction in New Markets”
Lucent Cable Solutions



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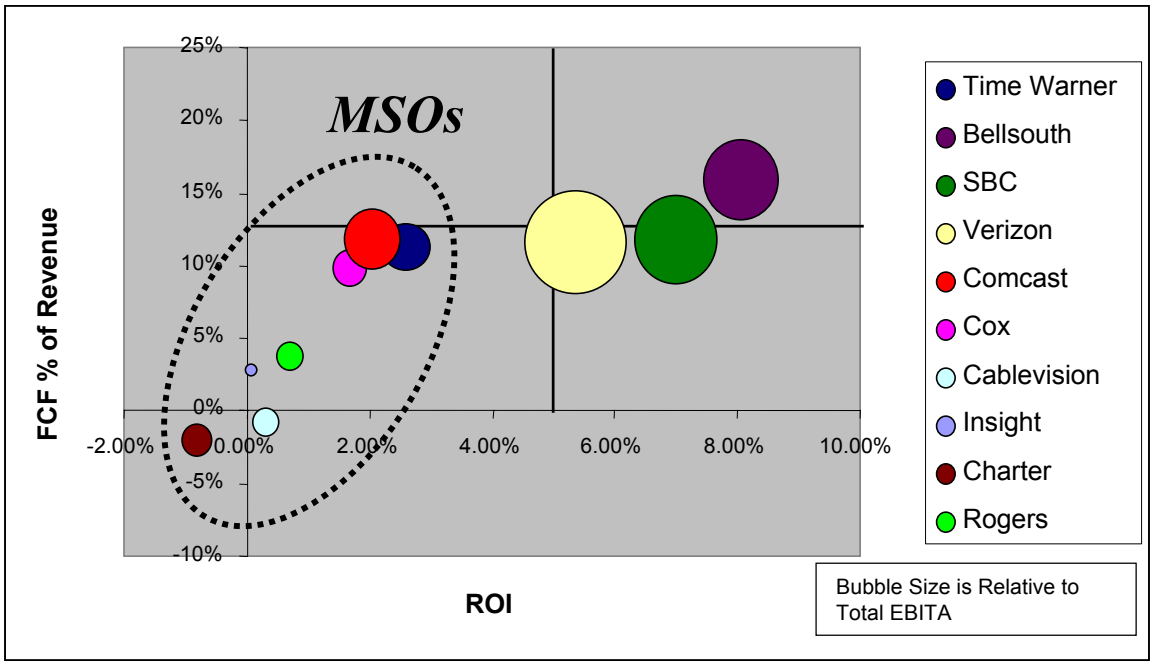
December 3, 2003

The MSO Challenge

Comparing MSOs and RBOCs



RBOC Financial Source : US Telecom Data Book, 09/03, Deutsche Bank Securities Inc. US Cable TV Basket Source : Morgan Stanley- Report Cable TV – 12/27/02; Lehman Brothers- Equity Research, 10/08/03

Key Points

- Investors are increasingly focused on free cash flow, returns on invested capital, and debt leverage as key measures of relative valuation.
- RBOC's are creating margin pressures on HS data while increasing their footprint, thus creating more market competitiveness and pressure on MSO revenue growth.
- MSO's higher percentage of operating expense causes smaller margins compared to RBOCs, resulting in lower return on invested capital.
- MSO's higher capital expenditure and interest payment cause lower free cash flow as compared to RBOCs.

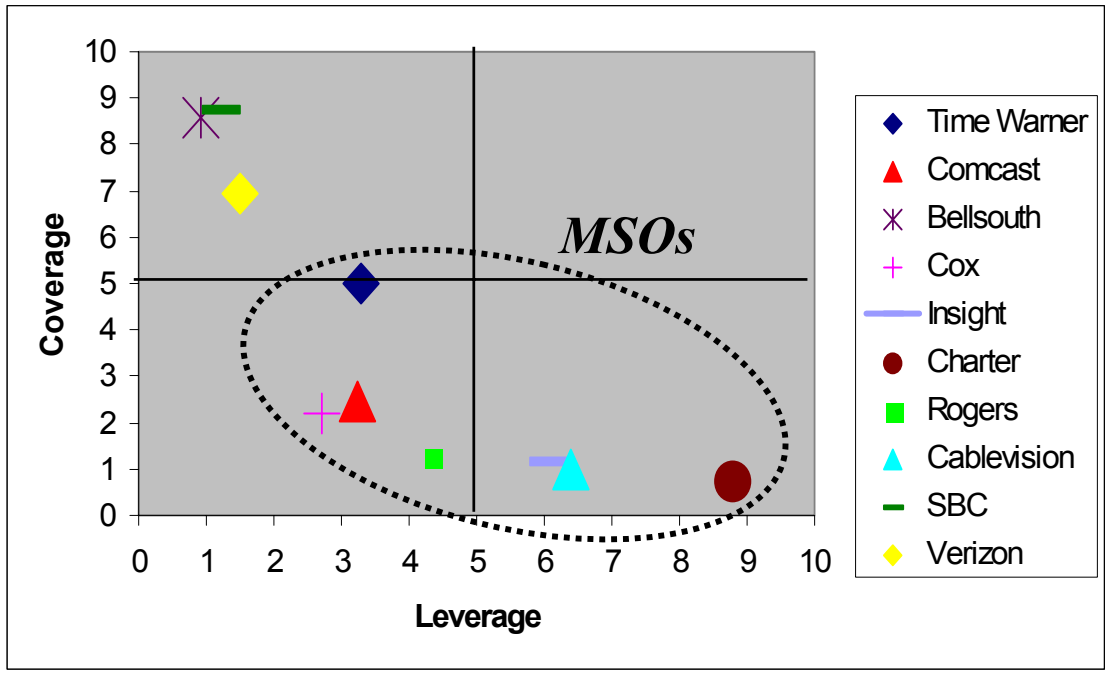
The Challenge: Increasing FCF and ROIC

The MSO Challenge - Continued

Key Points

- Investor sentiment has radically shifted away from businesses that are capital intensive, carry debt leverage to those companies that have liquidity and balance sheet strength & are generating excess returns on the total invested capital.
- Higher plant investments and acquisitions have resulted in the MSOs being significantly more leveraged. Higher operating cost causes lower EBITA which results in lower interest coverage ratio.
- With higher debt ratio, MSOs have less probability to be able to afford lower price to stem share loss. The result is that the RBOC price challenge may likely lead to continued basic subscriber losses for MSOs.

Comparing MSOs and RBOCs



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The Challenge Continued : Lowering Debt and OpEx

MSO Imperatives

Wall Street Expectations

***Growth Expectations** (Revenue, EBITDA & Cash Flow)*
***Margin Pressures from Competitors** (on Broadband & Video)*
Consolidation Expected to Drive Stock Valuations
***MSO's High Debt Ratio** (MSO's 5 yr - $65B Investment)*
***HSD Should be the Killer App** (MSO's claim 80% Margins)*
Rev/Sub: today @ $55, should rise to $125 per month
Partnerships - Satellite** (Distance Insensitive) + **RBOC
***Regulation** (Courts Redefine Cable Modems as Telecom Service)*
LEC's Planning Fiber-To-The-Home
HSD is Viewed Undifferentiated in the Market

Competitor Moves

To win *The Battle of the Bundle*

It is imperative that MSO's:

- Differentiate their services against RBOC/DBS to command premiums
- Protect their market share Data & Video
- Revitalize their Customer Care
- Deliver on the promise of VoIP

Business As Usual May Not Meet Financial Imperatives

Lucent Cable Offers



Challenges	Offers
LOWER COSTS	**Voice** • VOIP Business and Network Planning • LIVENET Multi-vendor Interoperability Lab • Build-Operate-Transfer VOIP Solutions
OPTIMIZE AND EVOLVE CURRENT NETWORK	**Back-Office** • Operations Assessment and Roadmaps • IP Software Solutions • Back-Office Systems Integration
IMPROVE RELIABILITY AND SECURITY	**Operations** • Services infrastructure simplification • Security Solutions
DEPLOY PROFITABLE SERVICES	***Data*** • *Data Systems Integration* **Transport** • Network Reliability • Network Optimization

Leveraging Bell Labs Solutions

Lucent Offers Address MSO's Challenges

VoIP Business and Network Modeling Service

Technical

- Network topology, architecture, design
- Traffic Models
- Operational Data
- Engineering Rules
- Technology & Product options

Economic

- Demand forecast, Services, Pricing
- Market trends, segments
- Competitive Environment
- Product/ Technology
- Ground Rules & Constraints

Inputs

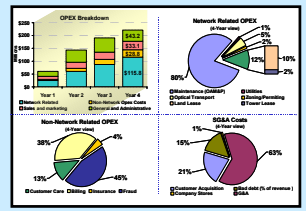
Business modeling provides a comprehensive picture of the total cost to own, operate and evolve a network

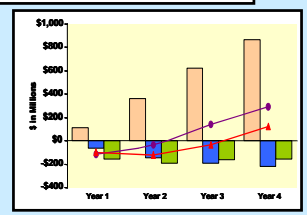
-- Analysis --

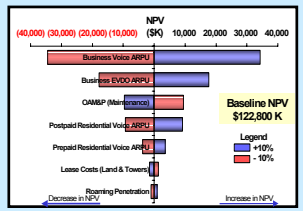
- Traffic Data Analysis
- End User Segmentation
- Multi-year Product and Service Mix
- Network Growth Configuration
- Revenue Modeling
- Total Cost of Ownership
- Financial Modeling and Analysis

Outputs

-- Results --







- Cash flow
- Break-even points
- Total Cost of Ownership
- Sensitivity Analysis

Bell Labs Cable Network Planning Platform enables LWS service delivery

Modeling helps optimize MSO VoIP decisions

Multivendor Interoperability Lab

The Challenge:

- Device interoperability
- PSTN interoperability
- Testing complex database conversions
- Ensuring scaling (e.g., 10,000+ lines)
- End-to-end feature compatibility assurance
- Physical line migrations M&Ps
- In-service migration procedures
- Rapid, low-cost provisioning procedures
- CALEA and E911



Integration Lab Testing Facilities – LIVE Net

The Solution:

- Lucent's Integration Lab Testing Facilities
- Supports multi-vendor
- Circuit, Packet and OSS support
- Complete array of PSTN switching gear and voice system test equipment
- Two locations in the US (NJ & IL)

Success Story: On May 8, 2003, Lucent announced a comprehensive suite of professional services & a multi-vendor integration lab that supports **PacketCable VoIP** product vendors who are planning to deliver voice services to cable operators, as well as operators looking to evaluate vendor products without incurring the expense of developing their own labs. CedarPoint Communications, Inc.--a provider of an integrated softswitch solution for the cable industry—uses the Lucent lab to demonstrate to cable operators its voice over IP (VoIP) technology.

Separating Product Performance, Integration Issues, from Operational Issues

System Integration

- Synchronized independent multiple equipment deployments
- Benefits:
  - **Integrated program plan and scheduling**
  - **Reduced site visits, and multiple coordination points**
  - **Reduced integration troubleshooting and finger pointing**
  - **Installation and integration responsibility centralized**
  - **Unified pre-deployment interoperability testing**
  - **Optimized integration providing improved network efficiency and reliability**

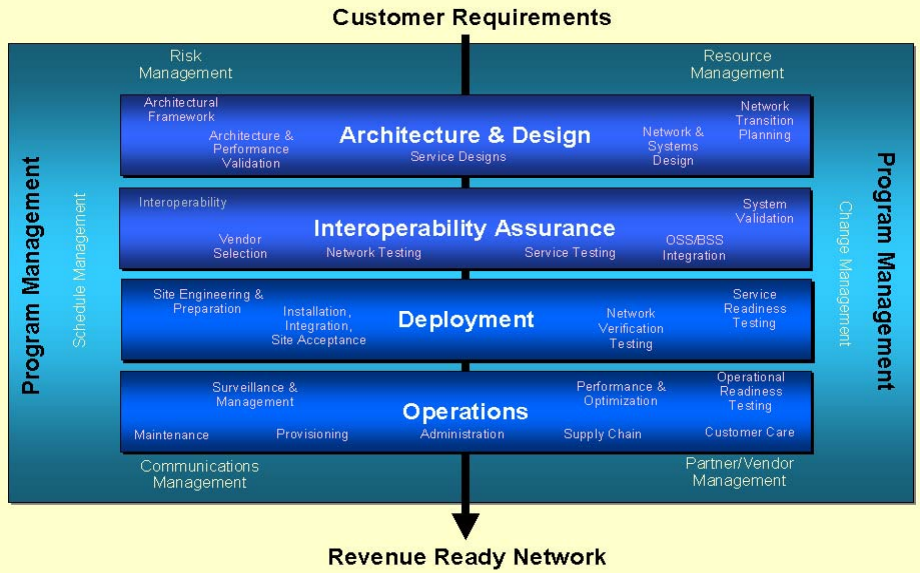
Multivendor migration and Integration

Multivendor Knowledge



Note: The above corporate signatures are the property of the companies named, and no implication of endorsement by such companies is intended.

Established Processes



Leveraging Partnerships and Alliances

Key Advantages

- Leveraging partnerships for end-to-end solution recommendation, including services and products
- Being the SPOC (single-point-of-contact) to multiple vendors
- Expediting interoperability issue identification and resolution

Focused Activities

- Engaging product vendor partners for joint solution creation, including network planning and business modeling
- Forming services vendor alliances to enhance services portfolio
- Expanding multivendor network interoperability test lab environment for proof of concept and interoperability validation
- Leveraging channel partners to expand market coverage

Summary

Speed to Market

- Lucent Network Design
- Lucent IP Networking Expertise and Proprietary Configuration Platforms
- Lucent large-scale rapid deployment and support

De-risk the Build Programs with Best-in-Breed Solutions

- Lucent Full End-to-End Services Offer
- Lucent Partners With Leading Industry Vendors to Interoperability Test and Deliver Next-Generation VoIP

Make the Right Decisions – Capex / Opex Efficiency

- Bell Labs innovations bring all necessary business and technical resources

Quality Voice

- Lucent Interoperability Testing Labs for End-to-End Cable VoIP Architecture Verification/Validation
- Lucent's Multi-vendor Integration and Interoperability Expertise Insures MSO's will have the Optimum Network Elements for VoIP Deployment

Lucent Takes the Guesswork Out of VoIP