

## TABLE OF CONTENTS

Executive Summary .....	2
Table of Contents .....	5
Tables and Figures.....	7
List of Tables .....	7
List of Figures .....	8
SECTION 1: The CLEC Sector - Definition and Context.....	10
1.1 Historical Context of the CLEC Sector.....	10
1.2 Sector Definition .....	11
1.3 Continued Relevance and Importance of the CLEC Sector.....	12
1.4 Relationship of CLECs to Overall Communications Industry .....	12
1.5 Identifying CLEC Service Scope.....	16
SECTION 2: Critical Market Drivers Affecting the Sector.....	19
2.1 Demand for Telecommunications Bandwidth .....	19
2.2 Near-term Cost-cutting by Customers .....	22
2.3 Long-Term IT Efficiencies.....	22
2.4 Telecom Regulation Less Favorable To Non-Facilities Operators.....	23
2.5 Data Requirements and Regulations in Other Industries.....	26
2.6 Federal Broadband Stimulus Funding .....	27
SECTION 3: Market Constraints Facing CLECS.....	29
3.1 Financial crisis and recession.....	30
3.2 Price compression .....	32
3.3 Customer apprehension .....	34
3.4 Sector-Extraneous Competitive Factors .....	35
SECTION 4: Critical Industry Trends Shaping the Sector .....	37
4.1 IP, MPLS, and Metro Ethernet.....	37
Deployment of Multiservice Platforms .....	38
4.2 The Softswitch Migration .....	39
4.3 SaaS, Cloud Computing, Virtualization.....	40
4.4 Reinvigorated Wholesale Markets .....	40
4.5 Declining in Residential .....	42
4.6 M&A Activity Quiet.....	43

SECTION 5: Evolving CLEC Strategies ..... 44

    5.1 Geographic Scale ..... 45

        Nationwide Strategy ..... 45

        Supra-Regional Strategy ..... 47

    5.2 Geographic Specificity ..... 49

    5.3 Value-Added Services ..... 49

    5.4 Niche Customer Segments ..... 52

    5.5 Diversified Revenue Mix ..... 52

    5.6 Customer Service ..... 53

        High Touch Customer Service ..... 53

        Nimbleness ..... 54

SECTION 6: CLEC Sector Metrics and Quantitative Analysis..... 54

    6.1 Sector Size ..... 55

    6.2 Total Sector Revenues: Total Revenues, Revenue Sources, and Forecasts .. 57

    6.3 Company-Level Revenue Analysis ..... 60

    6.4 Company-level Revenue Sources - By Customer Segment & Service Category 68

    6.5 Measuring CLEC Customer Base: Access Lines Served by the Sector ..... 77

    6.6 CLEC Network Facilities Metrics..... 81

    6.7 CLEC Capital Expenditures ..... 93

SECTION 7: Sector Diversity and Key Players ..... 97

    7.1 Nationwide Footprint CLECs..... 99

    7.2 Regional CLECs ..... 103

    7.3 Locally-Focused CLECs ..... 106

SECTION 8: Sector Outlook..... 110

## TABLES AND FIGURES

### List of Tables

Table 1.1: Classification of Competitive Service Providers.....	15
Table 1.2: CLEC Competition and Opportunities.....	16
Table 1.3: Categorizing Carriers' Service Revenue.....	17
Table 2.1: Bandwidth and Total Traffic Demands of Common Applications.....	21
Table 2.2: Enterprise IT and Telecom Factors.....	23
Table 2.3: Allocation of 2009 Federal Stimulus Funds for Broadband.....	28
Table 4.1: Overview of the Critical Trends in the CLEC Sector.....	37
Table 6.1: Compound Annual Growth Rates by Service Category (2005-2012).....	60
Table 6.2: Total Revenue by CLEC (2008-2009).....	62
Table 6.3: CLEC Rankings by Total Revenue (2008-2009).....	63
Table 6.4: Distribution of Company Total Revenue (2009).....	65
Table 6.5: Sector-wide Revenue Changes (2008 to 2009).....	65
Table 6.6: Total Revenue per Employee by CLEC (2008-2009).....	66
Table 6.7: CLEC Revenue and Ranking - By Customer Segment (in millions of \$) (2009).....	69
Table 6.8: Average CLEC Revenue by Customer Segment (2009).....	70
Table 6.9: Revenue Mix (%) by Customer Segment* - By CLEC (2008-2009).....	71
Table 6.10: Total Revenue by Service Category (in millions of \$) - By CLEC (2009)	74
Table 6.11: Sector Revenue Averages - By Service Category (2009).....	75
Table 6.12: CLEC Revenue Mix - By Service Category (2009)*.....	75
Table 6.13: Total Access Lines Served - By CLEC (2008-2009).....	79
Table 6.14: Access Lines Served - Sector Average (2008-2009).....	81
Table 6.15: Metro Fiber Route Miles by CLEC (2008-2009).....	84
Table 6.16: Total Metro Fiber Route Miles - Sector Averages (2008-2009).....	85
Table 6.17: Buildings On-Net - By CLEC (2008-2009).....	86
Table 6.18: Buildings On-Net - Sector Averages (2008-2009).....	87
Table 6.19: Average Fiber Strand Count* - By CLEC.....	88
Table 6.20: Circuit and Packet Switches Deployed - By CLEC (2008-2009).....	90
Table 6.21: Network Switches - Sector Averages (2009).....	92
Table 6.22: Circuit and Packet Switches Deployed - Sector Changes (2008 to 2009)	92

Table 6.23: Capital Expenditure - By CLEC (2008-2009) .....	93
Table 6.24: Change in Capital Expenditure by CLEC (2008 to 2009).....	95
Table 6.25: Capital Expenditures as % of Total Revenue - By CLEC (2008-2009) ...	96
Table 7.9: NTS Communications's Markets Served .....	107

## List of Figures

Figure 1.1: The Competitive Communications Landscape - Sector Schema.....	13
Figure 1.2: Relative Extent of Competitive Provider Metro Facilities .....	14
Figure 2.1: Estimated U.S. Internet Traffic (1995-2010) (Petabytes per Month).....	20
Figure 2.2: CLEC Access Lines Acquired as UNEs (1999-2013) .....	24
Figure 2.3: CLEC-Delivered Access Lines by Provisioning Method (1999-2013).....	25
Figure 3.1: Real Gross Domestic Product Fluctuations ( 2004-2009).....	30
Figure 3.2: CLECs' Stock Price Changes (January 2008 - May 2009) .....	32
Figure 3.3: Competitive Dynamics in the Residential Segment .....	36
Figure 4.1: Cellular Subscribers and Cell Sites (1995-2008) .....	41
Figure 4.2: Distribution of CLEC Access Lines by Customer Segment (1999-2013) .	43
Figure 5.1: National CLECs' Presence in Selected Major Markets (2009).....	46
Figure 5.2: Supra-Regional CLECs' Presence by State (2009) .....	47
Figure 5.3: Number of Facilities-Based CLECs Offering Managed Services .....	50
Figure 5.4: Value-Added Services in Carriers' Portfolios .....	51
Figure 6.1: Facilities-Based CLEC and Industry Position .....	56
Figure 6.2: CLEC Sector Total Revenue (2000-2013).....	57
Figure 6.3: CLEC Sector Growth (%) (2000-2013) .....	58
Figure 6.4: Total CLEC Sector Revenue by Service Category (2005-2012).....	59
Figure 6.5: CLEC Sector Revenue Breakdown by Service Category (2005-2012)....	59
Figure 6.6: Sector Revenue Growth by Service Category (2005-2012).....	60
Figure 6.7: CLEC Comparative Size by Revenue (2009) .....	61
Figure 6.8: CLEC Sector Revenue - By Customer Segment (2009).....	68
Figure 6.9: Total Sector Revenue by Service Category (2009) .....	73
Figure 6.10: Total Access Lines Served by CLECs (1999-2013).....	78
Figure 6.11: Total Access Lines Served by CLECs - % Growth (2000-2013).....	79
Figure 6.12: Total Metro Fiber Route Miles in Use - CLEC Sector (1998-2009).....	82

Figure 6.13: Metro Fiber Route Miles Growth - CLEC Sector (1998-2009) ..... 83

Figure 6.14: Total Circuit Switches In Service (1998-2009)..... 89

Figure 6.15: Total Circuit Switches In Service - Sector Growth (1998-2009)..... 90

Figure 7.1: CLEC Geographic Scope ..... 98

Figure 7.2: Business Customer Focus by CLEC Category ..... 99

Figure 7.3: Annual Revenue of Nationwide Facilities-based CLECs (2008) ..... 100

Figure 7.4: Average Retail Revenue per Business Customer (2004-2008) ..... 101

Figure 7.5: Fiber Route Miles of Select Nationwide CLECs..... 102

Figure 7.6: Total Revenue of Select Regional Facilities-based CLECs (2008)..... 103

Figure 7.7: Annual Revenue Growth Comparison - NuVox & Deltacom (2007-2009)104

Figure 7.8: Integra's Revenue Breakdown by Customer Segment (2008)..... 105

Figure 7.9: NTS Communications’s Fiber-to-the-Premise Network in Lubbock, TX 108

Figure 7.10: Buckeye TeleSystem’s Market Presence ..... 109