

HD Local Channel Project

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December 13, 2010**





Presentation Overview

- ⌚ **Background**
- ⌚ **Strategic Plan**
- ⌚ **Marketing Plan**
- ⌚ **Facility and Equipment Implementation Plan**
- ⌚ **Conclusions**



DIRECTV Background

- ⌚ **In 1994 DIRECTV launched its Direct-to-Home (DTH) television service with one satellite as part of Hughes Aircraft Company**
- ⌚ **In 1996 DIRECTV activates its 2 millionth customer and is ranked 7th in pay-television providers**
- ⌚ **In 1998 DIRECTV activates its 4 millionth customer and broadcasts the first coast-to-coast HD television demonstration**

DIRECTV Background (Con't)

- ⌚ **In 2000 DIRECTV activates its 9 millionth customer, started launching Standard Definition (SD) local channel markets and introduced a TiVO (DVR) set top box**
- ⌚ **In 2002 DIRECTV activates its 11 millionth customer, receives the JD Power and associates number one ranking and the FCC blocks the proposed merger between Hughes and Echostar**
- ⌚ **In 2005 “The DIRECTV Group” activates its 15 millionth customer, is 34% owned by Fox Entertainment Group and trades under ticker symbol DTV on the New York Stock Exchange**



Strategic Plan

∩ **Mission Statement**

∩ **Vision Statement**

∩ **Identify Problem**

∩ **Objectives (SMART)**

∩ **Approach**



Strategic Plan – Mission & Vision Statement

⌚ **Mission Statement – Who are we?**

- **TO transform the media landscape through a compelling and diverse combination of content, technology and service. Making, DIRECTV the clear choice among consumers**

⌚ **Vision – Where will DIRECTV be in five years?**

- **By the year 2010 DIRECTV will be the market leader with its High Definition local channel programming offer**

Strategic Plan - Problem and Hypothesis

⌚ Problem

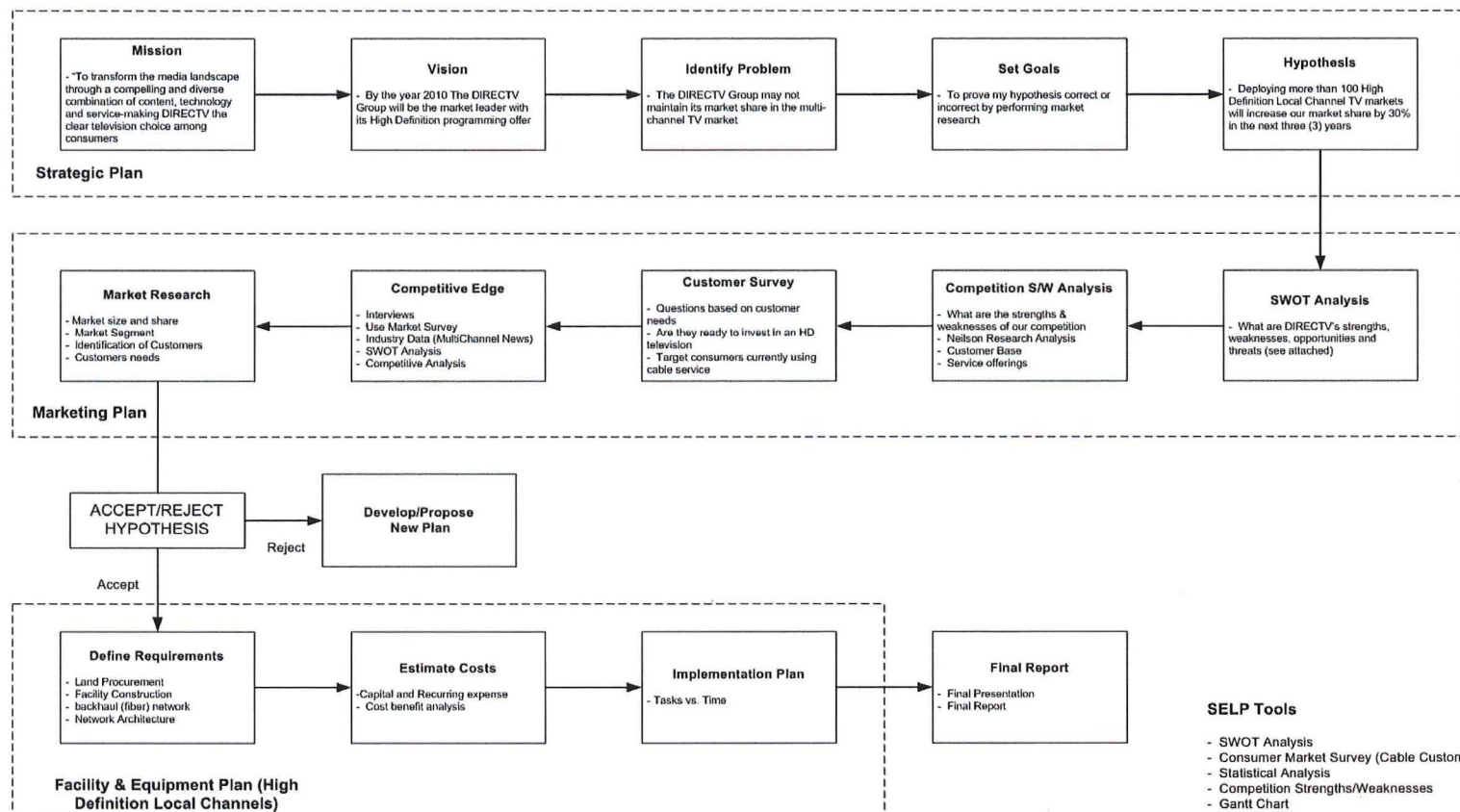
- The DIRECTV's Group (DTV) position as one of the leaders in the pay-television market is being threatened by the competition's bundled service offers to customers, which DTV cannot match.

⌚ Hypothesis

- Instead of matching the competition's bundled service offers, if DTV focuses on launching 100 High Definition (HD) local channel markets, its market share will increase to 30% within the next three years – by the end of 2008
 - DIRECTV's current market share is 18%
 - 30% increase = 23%
 - 50% increase = 27%

Strategic Plan – Approach

Project Flow Diagram



SELP Tools

- SWOT Analysis
- Consumer Market Survey (Cable Customers)
- Statistical Analysis
- Competition Strengths/Weaknesses
- Gantt Chart
- Team Building
- Cost Benefit Analysis
- Break-Even Analysis



Marketing Plan

- ∩ **SWOT Analysis**
- ∩ **Competition Analysis**
- ∩ **Customer Survey**
- ∩ **Competitive Edge**

Strategic Plan – DIRECTV SWOT

Strengths

- Robust market position
- Strong customer service

Opportunities

- Growth HDTV markets
- Initiatives in sports offerings
- Exclusive programming

Weaknesses

- Lost 2 years with company sale
- High dependence on the US market
- Declining margins

Threats

- Intense competition
- Regulations
- Program Costs

Marketing Plan – Competition Analysis

Market Analysis (2005)					
Company	Market Position	SUBS (in millions)	Market Share	SAC	ARPU
DIRECTV	2	15.0	18%	\$ 646.00	\$ 75.53
Echostar	3	11.7	14%	\$ 667.00	\$ 58.46
*Comcast	1	21.4	26%		\$ 82.67
*Time Warner	4	11.0	13%		\$ 84.10
COX Communications	5	6.3	8%		
Charter Communications	6	6.0	7%		\$ 73.94
*Adelphia	7	5.0	6%		
Cablevision	8	3.0	4%		\$ 95.22
MediaCom	9	1.4	2%		\$ 63.60
Insight	10	1.3	2%		\$ 73.64
Total Subscriber Base (millions) =		82.1			
Total US TVHH (millions) =		110.0			
Avg. ARPU					\$ 75.90
Avg SAC				\$ 656.50	

Marketing Plan – Competitive Analysis

EchoStar SWOT

Strengths

- Strong market position
- Significant customer satisfaction levels

Weaknesses

- Lack of Geographic Diversification

Opportunities

- Growing demand for the next generation of content delivery platforms
- Expanding offerings
- New regulation

Threats

- Technology advancement
- Legal issues



Marketing Plan – Customer Survey

∞ 100 People were asked 10 questions each

∞ This is what we found from the survey data collected

- 75% are willing to pay more than \$50 per month for their television services (2005 \$\$)**
- 60% say that their local news/sports are very important**
- 71% either own or plan to own (within the next 3 months) an HDTV**

Marketing Plan – Competitive Edge

Ω **Based on the market analysis DIRECTV is clearly in a position to become the pay-television market leader**

- **Strengths – market position and strong customer service**
- **Opportunities – HDTV market growth, sports offerings and exclusive programming**
- **Market position – 15.1 million (18.4% market share)**
- **Strong ARPU (\$75.53) and low SAC (\$646)**
- **Advanced technology and satellite capacity to support growth**

Marketing Plan – Payback Analysis

∞ Assumptions –

- **This analysis will be based on actual data from 2001 to 2004 as part of this model. I wanted to be conservative in the analysis so I did not take into account expected market growth**
- **Average ARPU annual increase - \$3.70**
- **Average annual subscriber growth – 856,500**

∞ Conclusion of analysis

- **Based on the analysis we will be able to payback the project costs within the third year**

Marketing Plan – Payback Analysis

	2005	2006	2007	2008	Total
Land Purchase	15,000,000	5,000,000	-	-	20,000,000
Facility Construction	5,000,000	40,000,000	5,000,000	-	50,000,000
Broadcast Site Integration	-	51,800,000	75,000,000	28,200,000	155,000,000
Local Collection Facilities	-	31,800,000	31,600,000	31,600,000	95,000,000
Backhaul Network	-	12,500,000	12,500,000	-	25,000,000
ODC (labor/travel)	-	7,000,000	7,000,000	1,000,000	15,000,000
Management Reserve (5%)	-	-	-	-	-
Total Capital Cost	20,000,000	148,100,000	131,100,000	60,800,000	360,000,000

ARPU (<i>Average Revenue per User</i>)	\$75.53	\$79.23	\$82.93	\$86.63	
		\$3.70	\$3.70	\$3.70	
DTV Subscribers	15,000,000	15,856,500	16,713,000	17,569,500	
Revenue	\$1,132,950,000	\$1,256,310,495	\$1,386,009,090	\$1,522,045,785	
\$'s Growth in Revenue	\$0	\$123,360,495	\$129,698,595	\$136,036,695	\$389,095,785

	2005	2006	2007	2008
Capital (Cum Costs)	\$20,000	\$168,100	\$299,200	\$360,000
Revenue (Cum Growth)	\$0	\$123,360	\$253,059	\$389,096

Marketing Plan – Payback Analysis

High Definition Infrastructure Build-out Estimate



Accept/Reject Hypothesis

⌚ ***If DIRECTV focuses on launching 100 High Definition local markets, its market share will increase from 18% to 30% within the next three years***

- **DTV's Strengths**
 - Market Position
 - Customer Service
 - Technical Capabilities
- **Payback Analysis - the analysis shows that DTV will be able to recover the costs of this project within three years**

⌚ **Based on the analysis – The Project is a GO!**



Facility & Equipment Implementation Plan

∞ **Define Requirements**

∞ **Estimate Costs**

∞ **Implementation Plan**



Implementation Plan – Define Requirements

- ∩ The system shall coexist with the existing legacy infrastructure**
- ∩ It shall be possible to broadcast the new transport streams using legacy RF uplink, downlink and satellite assets**
- ∩ The Integrated Receiver Decoder (IRD) shall be able to receive the new transport as well as the legacy transport**
- ∩ The system shall leverage the existing broadcast infrastructure where feasible**
- ∩ The system shall include test equipment to validate the new transport**

Implementation Plan – Requirements Verification Plan

Ω Unit/Laboratory Tests

- **In a controlled laboratory environment perform detailed unit/subsystem functionally, performance and interface testing**
- **Generate the following documents – Unit Test Procedures, Subsystem Test Procedures, System Test Procedures, Test Problem Reports and Training Materials**

Ω Installation Test

- **Post site integration – conduct continuity/signal flow on all cables and go/no-go on all hardware units (smoke test). Perform regression testing on selected systems comparing to laboratory results**
- **Generate the following documents – System Test Procedures (red-lined for regression testing) and Test Problem Reports**

Implementation Plan – Requirements Verification Plan

Ω Alpha Test

- Initial system level test – where possible drive all interfaces with “live” signals
- Generate the following documents – Standard Operational Procedures (SOPs) and Test Problem Reports

Ω Beta and Operational Test

- Exercise the system under “real-world” conditions using “friendly” customers
- Conducted by Operational personnel supported by engineering
- Generate the following documentation – Readiness Evaluation Scripts and Test Problem Reports

Implementation Plan – Requirements Verification Plan

∞ Post “Start of Service” Support

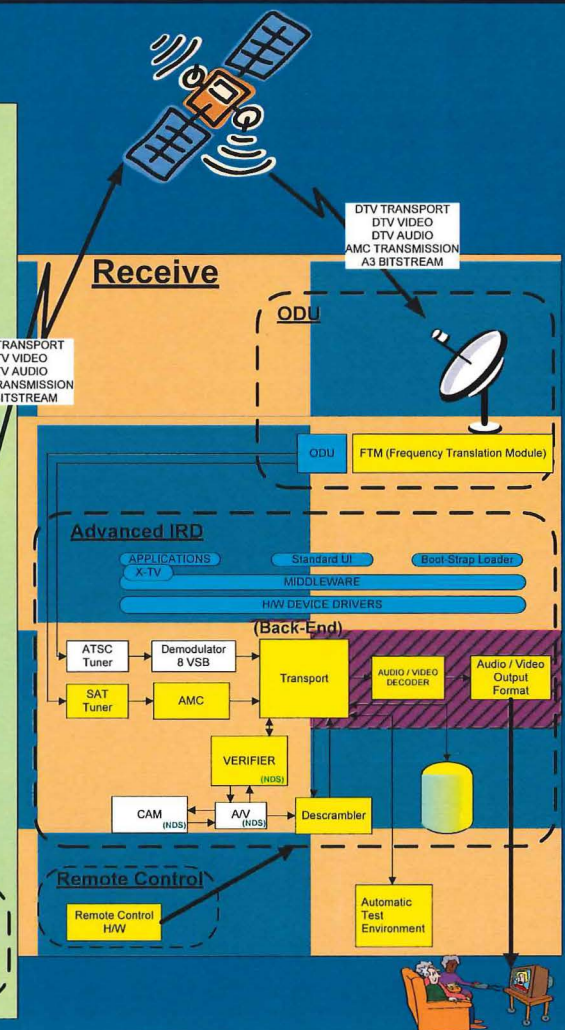
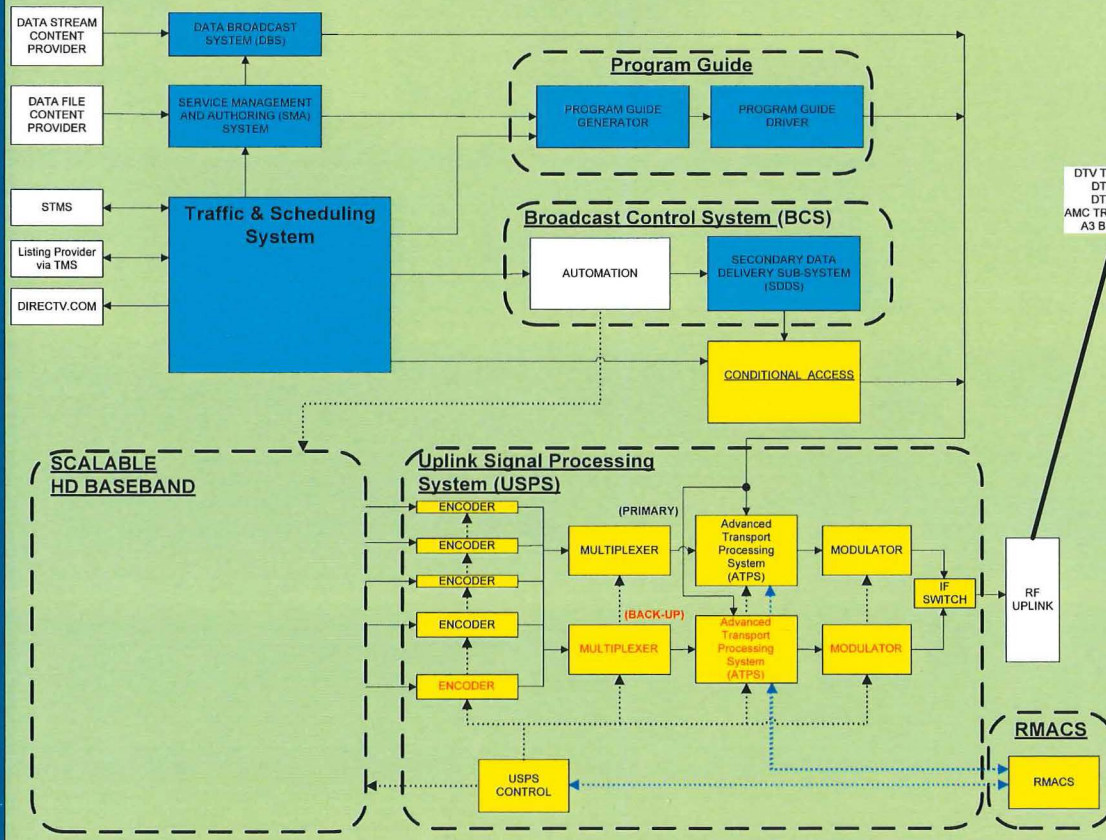
- Operations takes on full responsibility for the system upon “start-of-service.”
- Engineering provides support to resolve problems/issues as well as correcting any technical problems remaining on the Test Problem Report

Implementation Plan – Simple Block Diagram

Modification Level (H/M/L/NA)

= High
 = Medium
 = Low / NA

Broadcast





Implementation Plan – Project Trades

∞ Capacity

- **Satellite**
 - Ku/Ka - Frequency Band
 - Spot Beam Technology
- **Compression Efficiency**
 - MPEG 2 vs. MPEG 4
 - DVB vs. DSS Transport
- **Backhaul Fiber Network**
 - Legacy ATM Network
 - New IP Network

∞ Vendor/Supplier Selection

- **Single source supplier**
- **“best of Breed”**

Implementation Plan – Risk Management

∞ Project Communication Plan

- Meetings – will be structured with agendas, start/stop on time and publish meeting notes
- Monthly project meetings – to review schedule, cost progress and risks
- Architectural/Design Reviews – concept review, architectural review, PDR/CDR and system readiness
- On-Line Documentation Storage – all documentation will be stored in a centralized location

∞ Interface Control Working Groups

- Interface team consists of Engineering, Operations and Vendors



Implementation Plan – Ethical Issues

⌚ Vendor/Supplier Relationships

- While we have to make sure the relationship between the Vendor/Supplier is ethical we also have to ensure the Vendor/Supplier can provide the product that meets our requirements, in the quantity and schedule required all at fair market value

⌚ Patent Infringement

- Working with our patent attorneys and our suppliers to be clear on the ownership of intellectual property

⌚ Follow the Company Code of Ethics

- Conduct all dealings with honesty and fairness, exercise good judgment and high ethical standards
- Safeguard of Company Proprietary information
- Avoid even the appearance of misconduct or impropriety

Implementation Plan – Team Building

HD Local-into-Local with A3 Technology Project Roles and Responsibilities

Broadcast Systems

- LCF
- Broadcast Center Facilities
- Signal Processing (SAPS)
- Backhaul Network
- Integration Lead
- BOC Monitoring

A3

- USPS
- APG
- CA
- Traffic/DTSS
- SDDS

RF SYSTEMS

- Uplink RF
- Downlink RF
- Diversity Control

SPACE SEGMENT

- Spaceway 1 & 2
- D10/D11
- DIRECTV 8

Systems

- End-to-End Systems Level Testing
- Transition
- Interface Control Documentation (ICD's) (All)
- Master Schedule (Broadcast Systems)
- On-Air Readiness (Broadcast Systems)
- Error Detection (All subsystems)
- Monitoring & Control (Broadcast Systems)
- Error Monitoring (Broadcast Systems)
- Integration Lead (Broadcast Systems)
- Integration Documentation (Broadcast Systems)

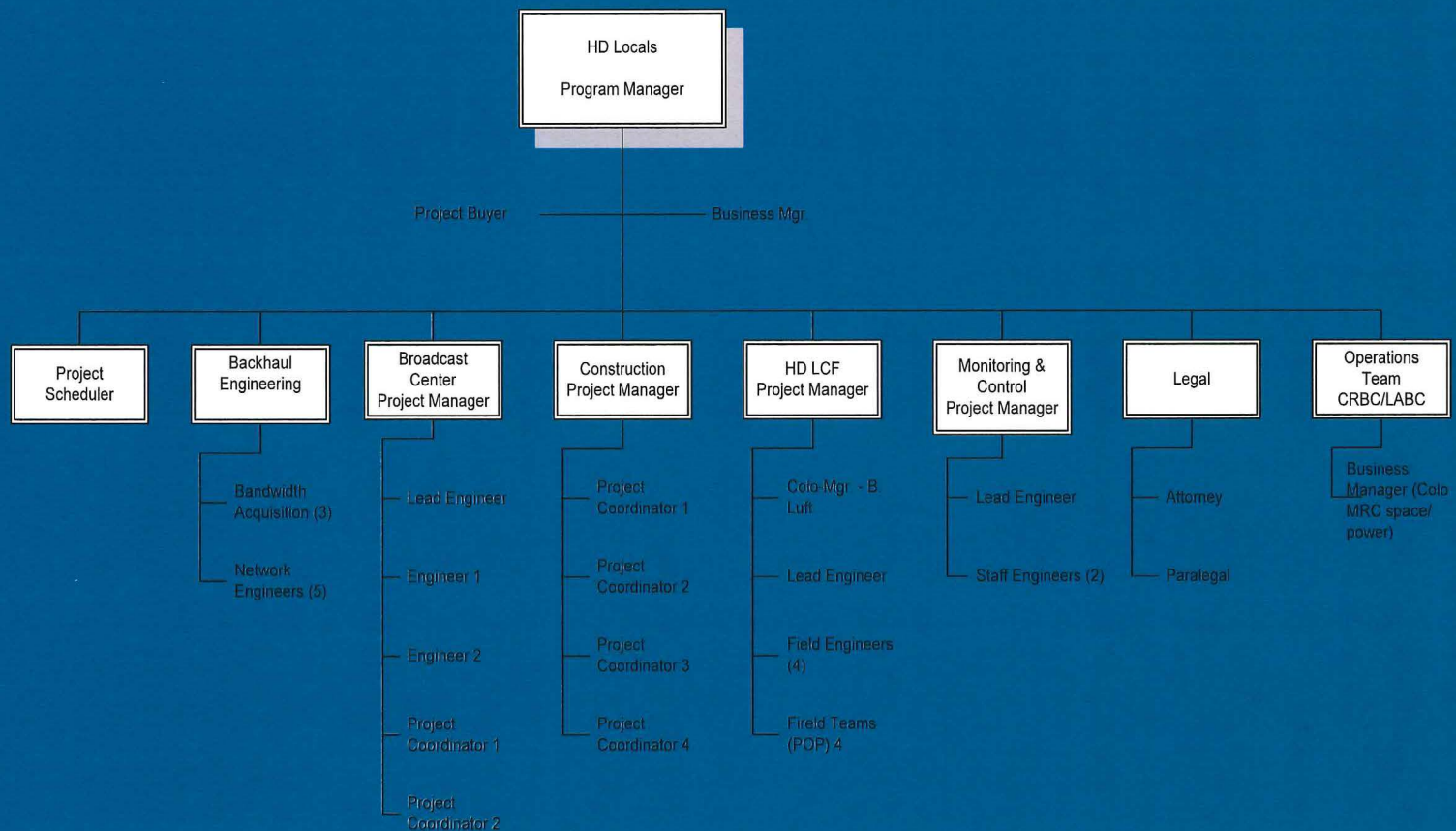
Out Door Unit

Frequency Translation Module

Integrated Receiver Decoder

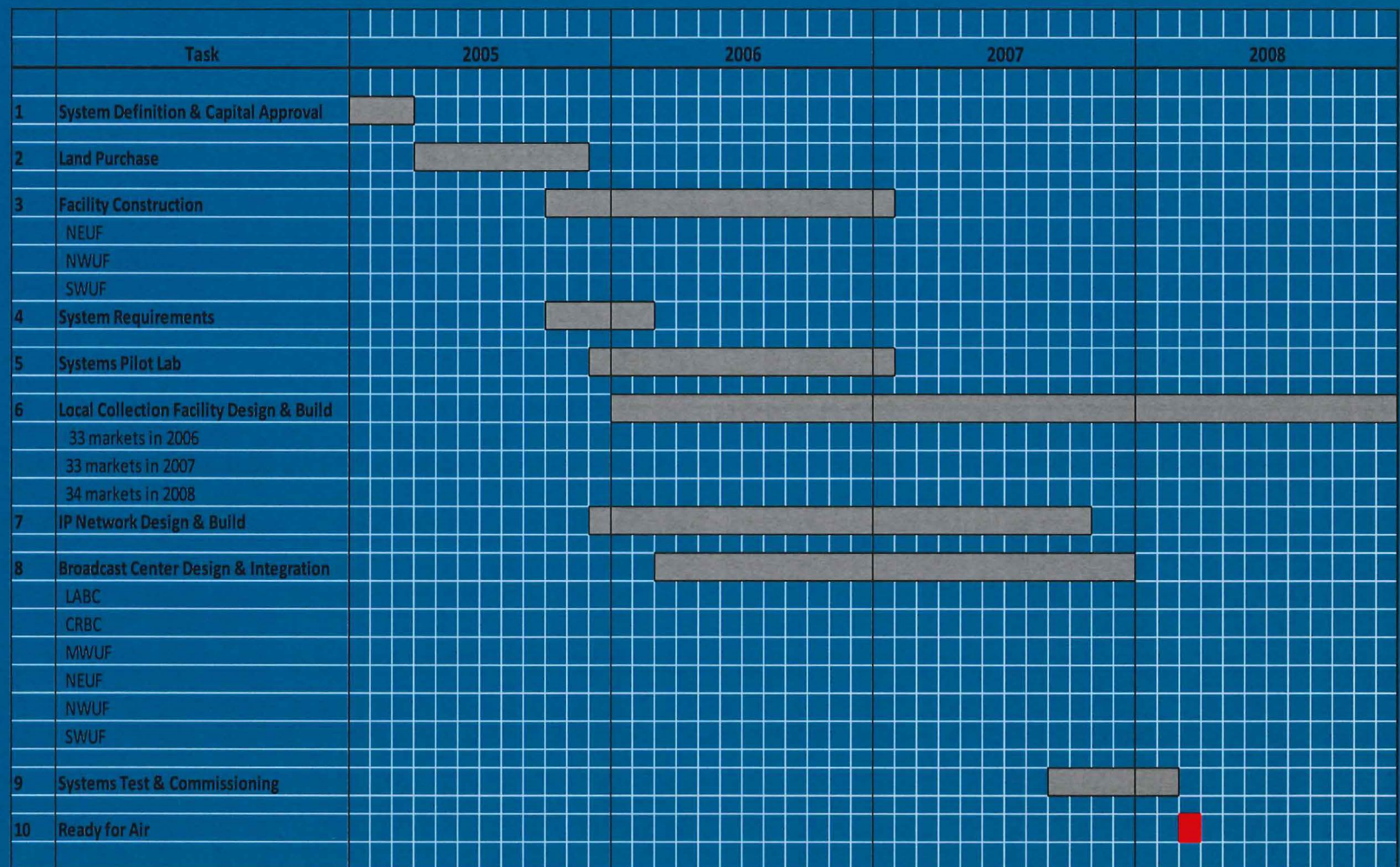
Implementation Plan – Team Building

HD Broadcast Systems Project Team



HD Local Channel Project Cost Estimate						
Description		2005 (\$k)	2006 (\$k)	2007 (\$k)	2008 (\$k)	Totals (\$k)
1. Land Purchase		\$ 15,000.00	\$ 5,000.00			\$ 20,000.00
2. Facility Construction		\$ 5,000.00	\$ 40,000.00	\$ 5,000.00		\$ 50,000.00
3. Broadcast Site Integration			\$ 51,800.00	\$ 75,000.00	\$ 28,200.00	\$ 155,000.00
4. Local Collection Facilities			\$ 31,800.00	\$ 31,600.00	\$ 31,600.00	\$ 95,000.00
5. Backhaul Network			\$ 12,500.00	\$ 12,500.00		\$ 25,000.00
6. ODC (labor/travel)			\$ 7,000.00	\$ 7,000.00	\$ 1,000.00	\$ 15,000.00
7. Management Reserve (5%)						
Totals by Year		\$ 20,000.00	\$ 148,100.00	\$ 131,100.00	\$ 60,800.00	
				Total Budget (less mgt reserve)		\$ 360,000.00

Implementation Plan – Implementation Plan



Conclusions

⌚ Did we prove hypothesis correct?

- **While we did not gain 30% subscriber growth; we consider this project a success**
 - **Subscriber growth 20%**
 - **Exceeded market growth to 120 HD markets**
 - **Churn was reduced in HD markets**
 - **We continue to grow subscribers while the competition does not**

Conclusions

∞ What were the “Wins”

- **Building a strong project team**
- **Development of project communications plan**
- **Developing a system end-to-end Pilot Testing Lab with the ability to prove the technology**
- **Streamline the Local Collection Facility (LCF) build process to gain schedule and cost efficiency**

Conclusions – Where are we today

Market Analysis (2010)			
Company	Market Position	SUBS (in millions)	Market Share
DIRECTV	2	19.0	20%
EchoStar	3	14.3	15%
Comcast	1	23.2	24%
Time Warner	4	12.7	13%
Cox Communications	5	5.0	5%
Charter Communications	6	4.7	5%
Verizon Communications	7	3.2	3%
Cablevision	8	3.1	3%
AT&T	9	2.5	3%
Bright House Networks	10	2.2	2%
Others (13 companies)		6.0	6%
Total Subscriber Base (millions) =		95.9	
Total US TVHH (millions) =		110.0	