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How to Compare Premises and Hosted IP Telephony Solutions

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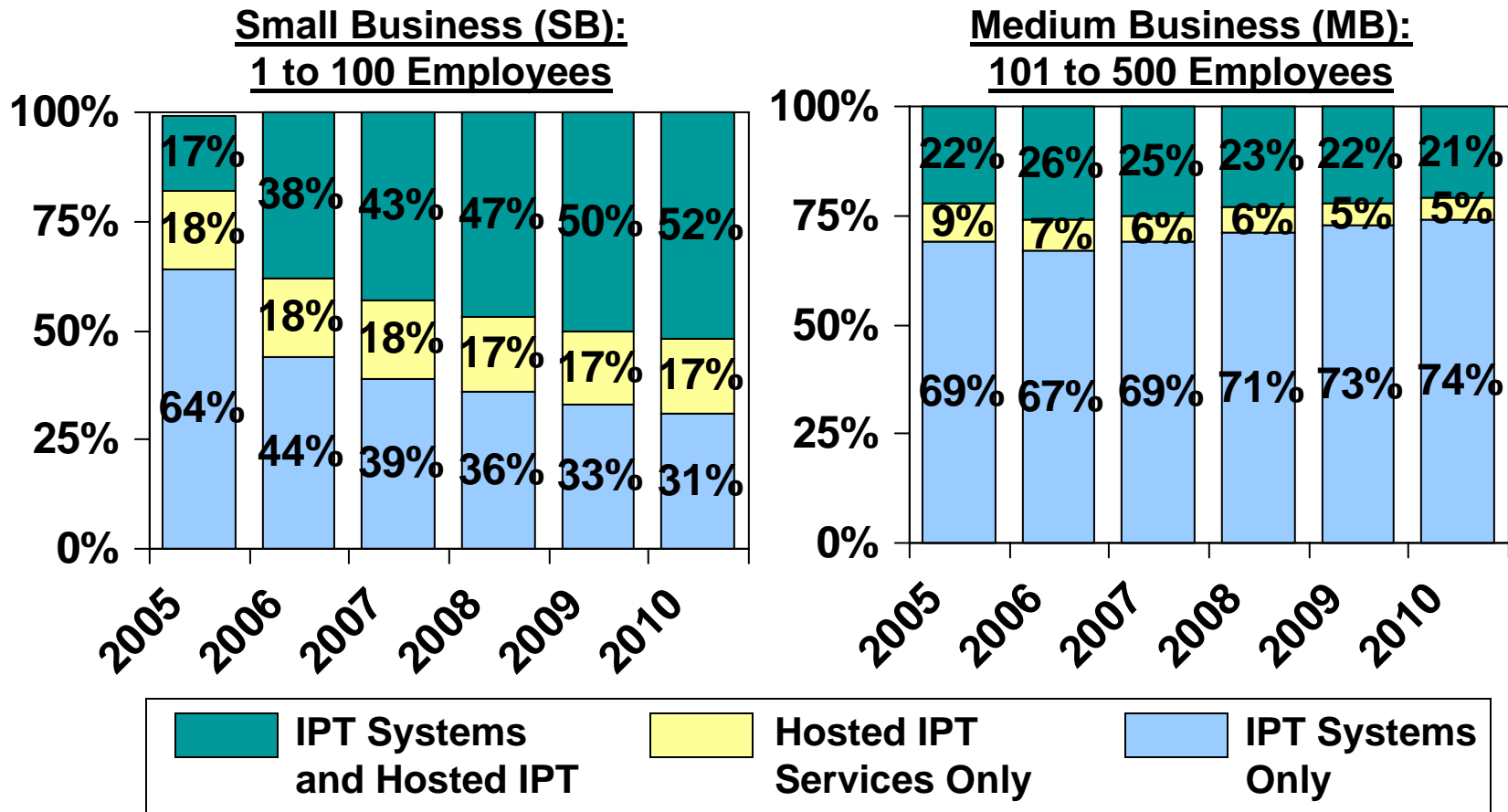**InfoTech/The Telecom Intelligence Group**

What Will Be Covered

- InfoTech research results
  - Level of interest in hosted services
  - Driving factors
- Major advantages and disadvantages
- Financial views
- Avaya case study

By 2009, Two-Thirds of Small Businesses Are Expected to Implement Hosted IPT Services

% of SMB IPT Implementers

Small Business (SB): 1 to 100 Employees

Medium Business (MB): 101 to 500 Employees

Legend:
- IPT Systems and Hosted IPT
- Hosted IPT Services Only
- IPT Systems Only

Source: InfoTech - InfoTrack for Converged Communications – Proprietary

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Enterprise IPT Implementation Rate
IPT Systems vs. Hosted IPT Services

% of Enterprise Sites Implementing IPT Systems vs. Services
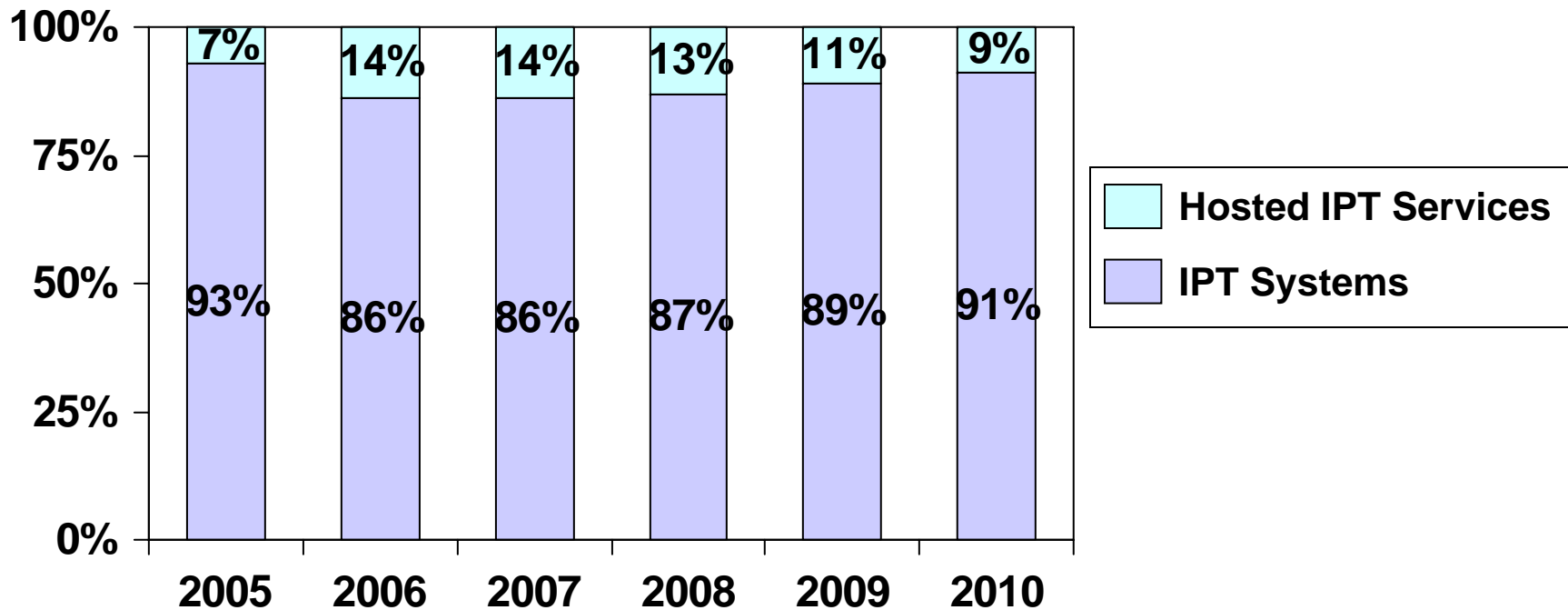
Source: InfoTech - InfoTrack for Converged Communications – Proprietary

Enterprise Reasons for Preferring Hosted IPT Services

% of Enterprises Rating Reason Either 1st or 2nd Most Important

Reasons

	% of MEs	**% of LEs**	**% of VLEs**
IPT life cycle uncertainty Given the _uncertainty_ around the _life cycle of IPT products_, we would rather have a Service Provider own the assets	67%	36%	56%
Improvement over Centrex Hosted IPT services offer a significant _improvement_ in features and capabilities compared to our current Centrex services	58%	50%	44%
Fixed monthly bill Hosted IPT services offer a _fixed_ and predictable _monthly bill_ for network/communications expenses	55%	82%	83%
Reduce network/support costs Hosted IPT services will enable us to _reduce our network and user support costs_	50%	65%	78%
Lower TCO Hosted IPT services offer a _lower TCO_ (Total Cost of Ownership)	50%	64%	92%
No dedicated IT staff We _don't have the dedicated IT staff_ needed to support IPT systems	50%	45%	67%
Single point of accountability Hosted IPT services offer _single point of accountability_	33%	68%	89%

0%   100% 0%   100% 0%   100%

Source: InfoTech - InfoTrack for Converged Communications – Proprietary
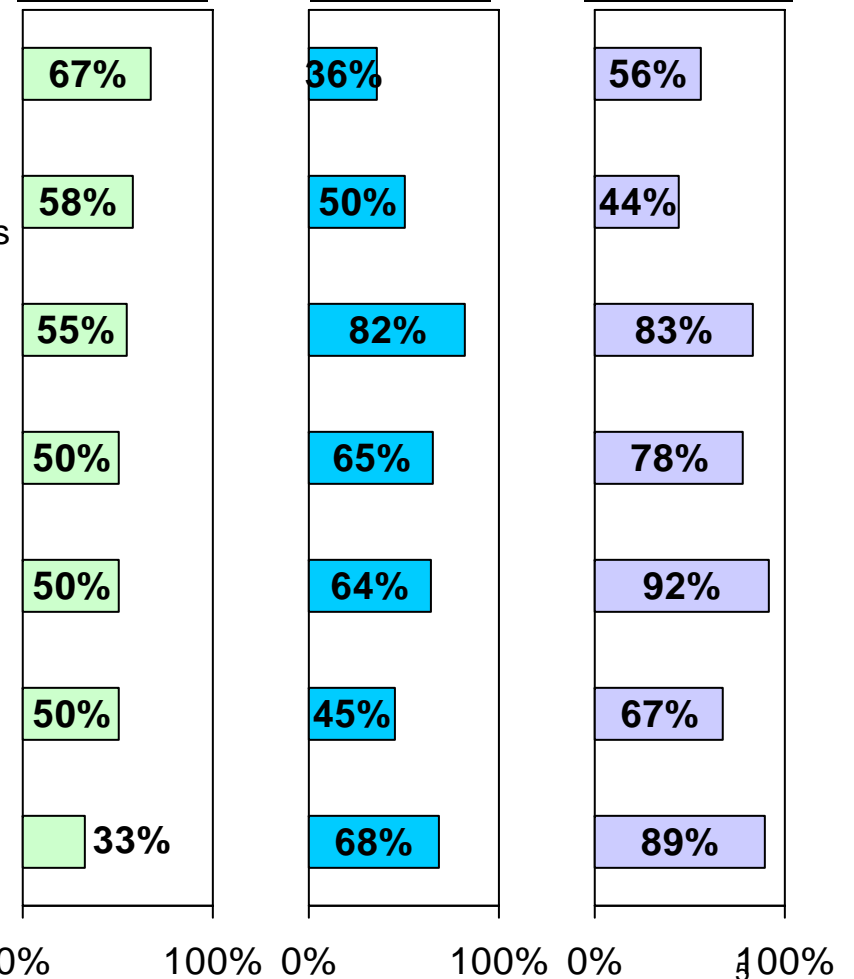
Enterprise Hosted IPT Service Provider Decision Criteria

Rating Criteria on a 5-Point Scale:
5=Extremely Important;
1=Not Important

	ME	LE	VLE	Ranking ME	LE	VLE
• Reliability	4.50	4.73	4.25	1	1	2
• Security	4.10	4.55	4.11	2	2	4
• Total Cost of Ownership	4.10	4.18	4.00	3	4	6
• Strong track record in equipment maintenance	4.00	3.73	4.11	4	9	5
• Networking experience	4.00	3.70	4.33	5	11	1
• Demonstrated expertise in IPT technical support	3.90	4.00	4.00	6	6	7
• Complete set of telephony features	3.70	4.36	4.00	7	3	8
• Telephony experience	3.70	3.73	4.22	8	10	3
• Applications that can improve worker productivity	3.56	4.09	3.78	9	5	11
• Application integration with our business processes	3.50	4.00	4.00	10	7	9
• Compatibility with existing phone systems/services	3.50	3.91	3.89	11	8	10
• Vendor knowledge of my business/vertical	3.50	3.40	3.56	12	12	13
• Strong existing relationship	3.20	3.18	3.78	13	13	12

Life Cycle Uncertainty

- Obsolescence
  - Cost of maintenance
  - Capital cost of replacement
  - Analysis/RFP/Selection of new solution
- Software Upgrades
  - No decisions, no business case
  - Software version always current

Implementation

- Less complex than CPE
- Professional station review (less "customer not ready")
- Last minute changes easily accommodated
- Flexible cutover as per customer needs
- Lower cost

Growth Management

- Reduced inventory management
- Gateway/network access scalability managed by provider
- License per seat instead of bundles
- Monthly costs can decrease based on user population
- M & A's require less planning, easier implementation

Maintenance

- No truck roll (4+ hours)
  - Quick initiation of troubleshooting/repair
- 24x7 comes with the territory
  - Cost prohibitive for many CPE situations
  - Still means a 2 to 4 hour wait for CPE tech
- Single point of accountability for network and "CPE"
- Reduced need for testing/monitoring UPS
- Only pay for active seats
  - No need to track ports not in use

Network Management & Administration

- Hosted provider manages WAN QoS
  - Hosted providers need to manage/support end to end (including LAN)
- Change management processes should have high quality
- MAC work can be done by customer or easily outsourced to hosted provider

Security, Reliability, Continuity

- Avoids enterprise need to manage
  - Intrusion detection for maintenance ports
  - Security software patches (version control, testing, etc.)

- Carrier-grade reliability/survivability
  - Hardened operations sites
  - Carrier-grade redundancy and backup

- Strong continuity support
  - Single location businesses
  - Avoids need for backup work site

- E-911 calls traced to desktop

Mixed Environments

- Migration can take place seat by seat
  - Hosted applications are automatically centralized regardless of sites converted

- Terminal mix options
  - Hosted providers often offer more choices
  - Not hampered by closed architectures
  - Citel gateways enable continued use of TDM/Digital terminals

Staff Resources – Initial Planning

- Hosted service reduces the need for:
  - Financial planning
  - Maintenance and installation contract negotiation and management
  - Call accounting systems
  - Technical planning
  - Project management
  - Administrator and technician training/certification
  - Security and continuity planning

<u>Staff Resources – Ongoing Management</u>

- Hosted service reduces the need for:
  - Inventory management
  - Change control
  - Network management
  - Software upgrades
  - Software patches
  - Preventative maintenance
  - Security management
  - Continuity process planning and management
  - Ongoing training and certification

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Percent of Premises-Based System Resources Needed for Comparable Planning Work on Hosted Service	
Work Functions (Initial Planning)	**Percent of Premises-based Resource Needed in Hosted Environment**
Initial technical planning	25%
Initial business and financial planning	20%
Initial project planning	25%
Percent of Premises-Based System Resources Needed for Comparable Ongoing Work on Hosted Service	
Work Functions (Ongoing Management)	**Percent of Premises-based Resource Needed in Hosted Environment**
Planning, project management and design work	15%
Telephony application upgrade	0
Voice messaging application upgrade	0
System/network administration	25%
Technical support	5%
Security management	15%
Contingency management	5%

Custom Applications

- Strongest advantage for CPE solutions
- Hosted providers must extend API's
- Enterprises must evaluate feasibility/impact based on internal application development architectures (e.g., SOA)

Relative Degrees of Advantage

System/Service Element	Premises System Advantage	Hosted Service Advantage
Implementation		2
Growth Management		2
Maintenance		4
Network Management		2
Administration	2	
Mixed IP and TDM Network		4
Mixed IP and TDM Terminals		2
Security		4
Reliability		2
Continuity		4
E-911		2
Virtual Office		2
Purchasing Leverage	2	
Cash Flow	0	0
Custom Applications	4	
Software Upgrades		4
Mergers and Acquisitions		4
Staffing		4
Obsolescence		2

Degree of Advantage

0 - **No advantage to either approach (may depend on customer's circumstances)**

2 – **Modest advantage**

4 – **Strong advantage**

Purchasing Leverage & Cash Flow

- Hosted services may have less purchasing leverage than CPE solutions

- Hosted services smooth out cash flow

- Total cost of ownership is generally less with hosted solutions but this can vary depending on factors such as:

  – Access and Toll bundling (incl. Internet service)

  – Customer treatment of resource savings

  – Costs of terminals used

  – Maintenance plan used with CPE

ROI Analysis – Key Assumptions

Users (single location)	50
Voice mailboxes	55
Percent of users with soft terminals[1]	20%
Percent of users with digital phones	25%
Percent of users with single line IP phones	25%
Percent of users with multi-line IP phones	50%
Cost of capital	12%
IP Telephony service charge per month per user[2]	$30.00
Voice mail service charge per mailbox per month	$8.00
Soft phone terminal charge per month	$1.50
Single line IP phone charge per month	$3.00
Multi-line IP phone charge per month	$5.50
Charge per port for system equipment (purchase price) (does not include terminals)	$160
Charge per mailbox for voice mail system (purchase price)	$36
Charge for IP Telephony software upgrade	$1,000
Charge for voice mail/messaging software upgrade	$250
Minutes of domestic toll use per month[3]	33,000
Cost per minute of domestic toll use with hosted service	$0.030
Cost per minute of domestic toll use w/o hosted service	$0.038

[1] The tool allows users to have both hard phones and softphones.

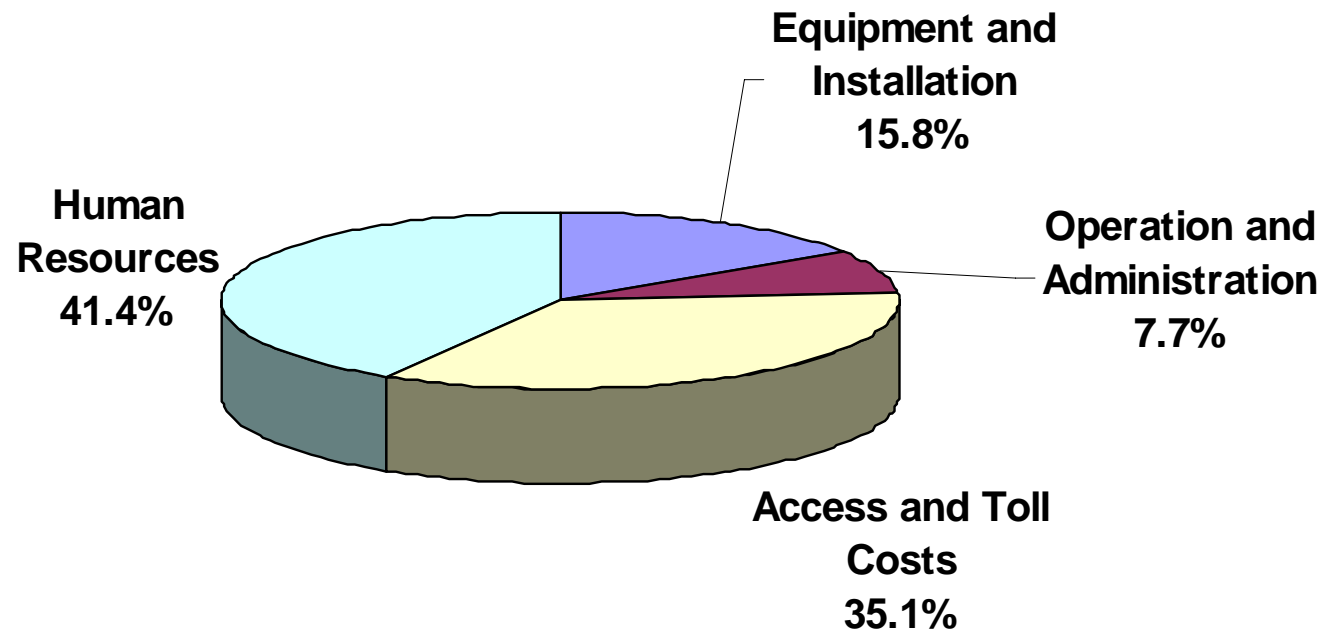[2] Telephony service only – does not include toll or LD costs unless specifically included in bundle.

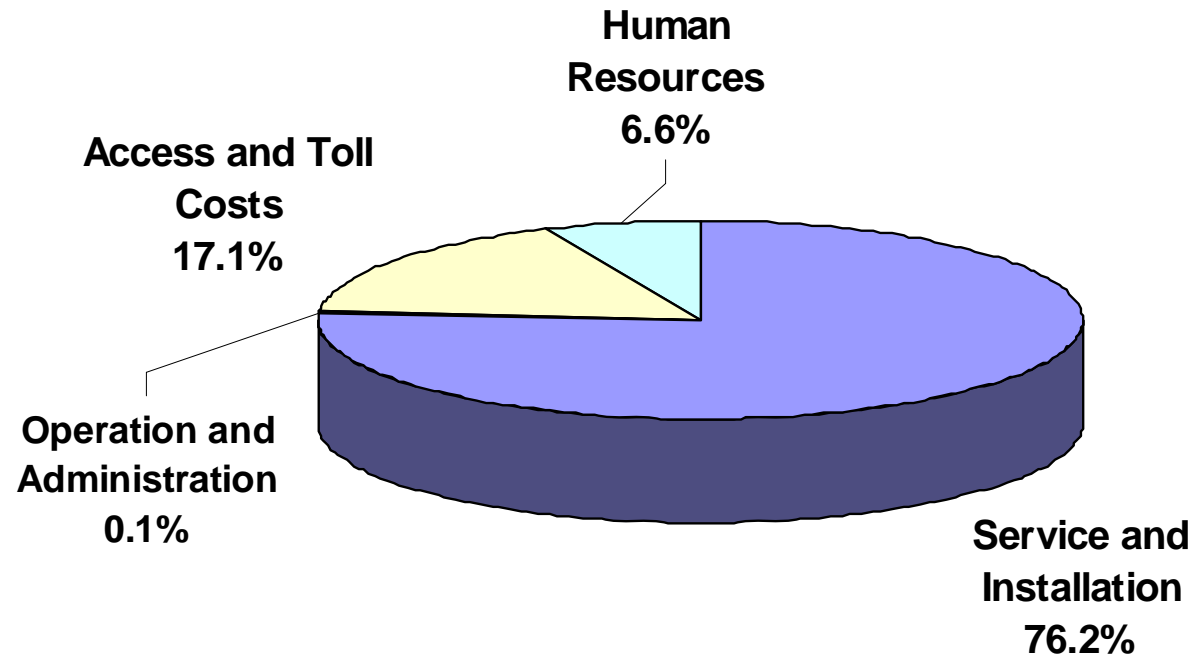[3] Assumes .5 hour per user per business day (local and LD)

Results of ROI Analysis

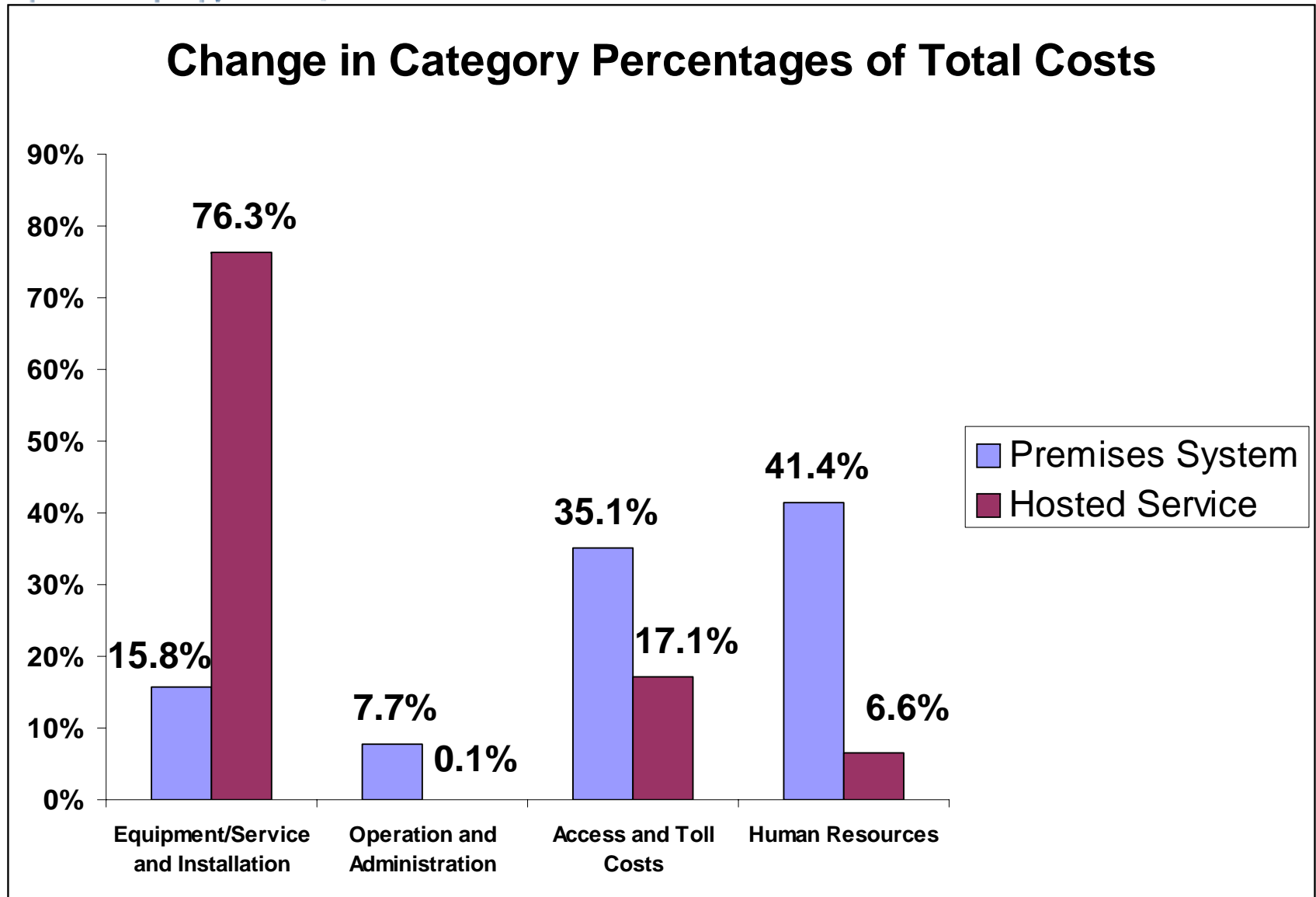|	
Net Present Value - Premises System Costs	**$225,380**
Net Present Value - Hosted IP Telephony Service Costs	**$137,002**
Total (discounted) Savings From Hosted Service Over 5 Year Planning Period	**$88,378**
ROI of Hosted IP Telephony Service[1]	**65%**

[1] This ROI was developed by dividing the total discounted savings by the NPV of the Hosted service costs. Thus, this is the ratio of savings to "invested costs." Another way to look at this is to say that this is the percent of cash flow improvement for a hosted service.
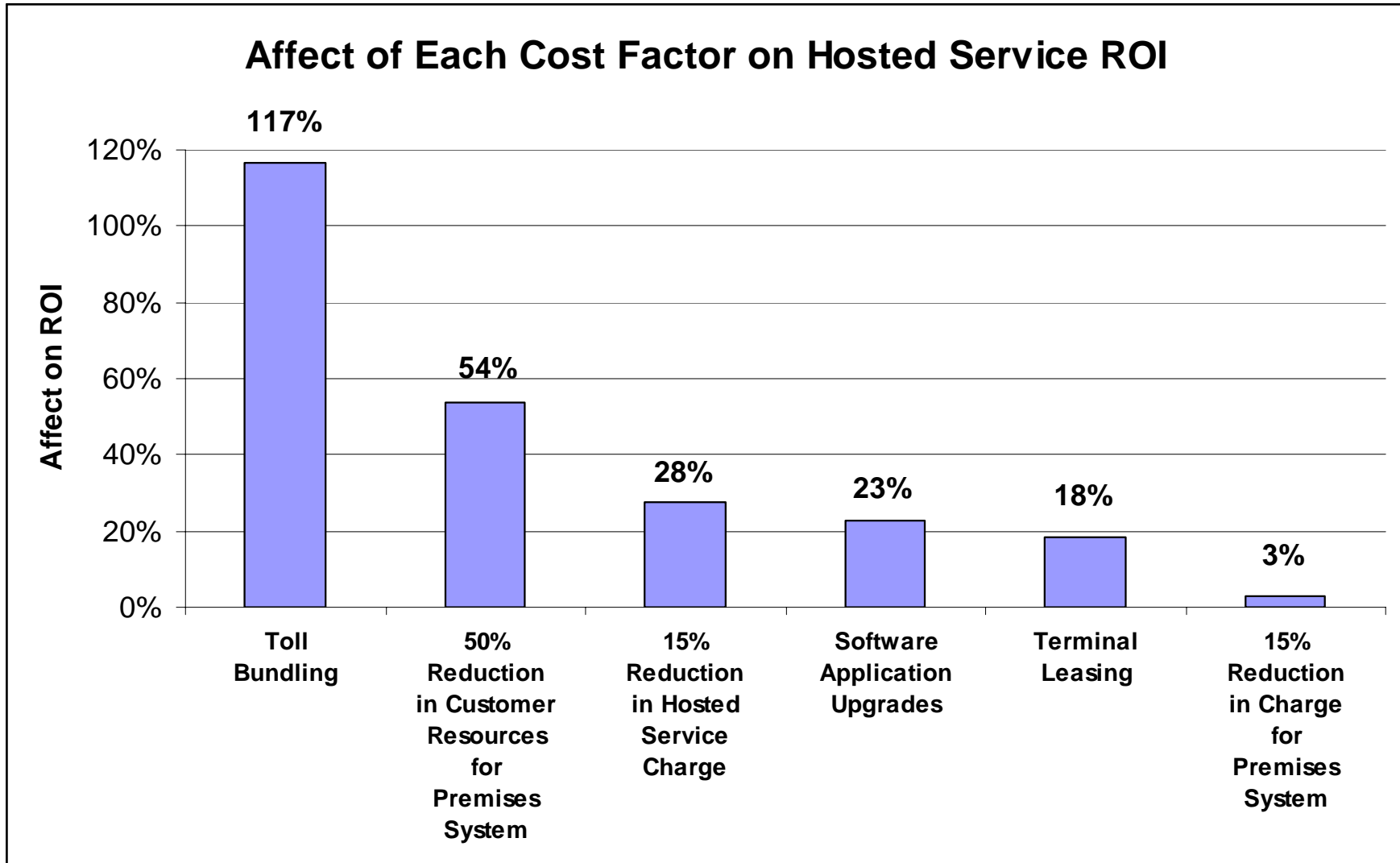
Purchased IP Telephony System Cost Elements
(5-Year NPV = $225,380)

Equipment and Installation 15.8%

Operation and Administration 7.7%

Human Resources 41.4%

Access and Toll Costs 35.1%

Hosted IP Telephony Service Cost Elements
(5-Year NPV = $137,002)

Human Resources 6.6%

Access and Toll Costs 17.1%

Operation and Administration 0.1%

Service and Installation 76.2%

Avaya Case Study

Hosted Service vs. IP Telephony System Financial Analysis Report

Financial Measures	Value
Net Present Value of Cash Flow - Premises System	$9,004,859
Net Present Value of Cash Flow - Hosted Service	$6,403,505
Total Discounted Cash Savings Over Planning Period	$2,601,354
Percent Cash Savings of Hosted Service	41%
Purchase Breakeven Period (years)	more than 5
Analysis Period Length	5 years
Hosted Terminal Payment Plan	Leased

Customer Measures	Value
Number of Initial Users	306
Number of Initial Voice Mailboxes	0

Avaya Case Study Cont.
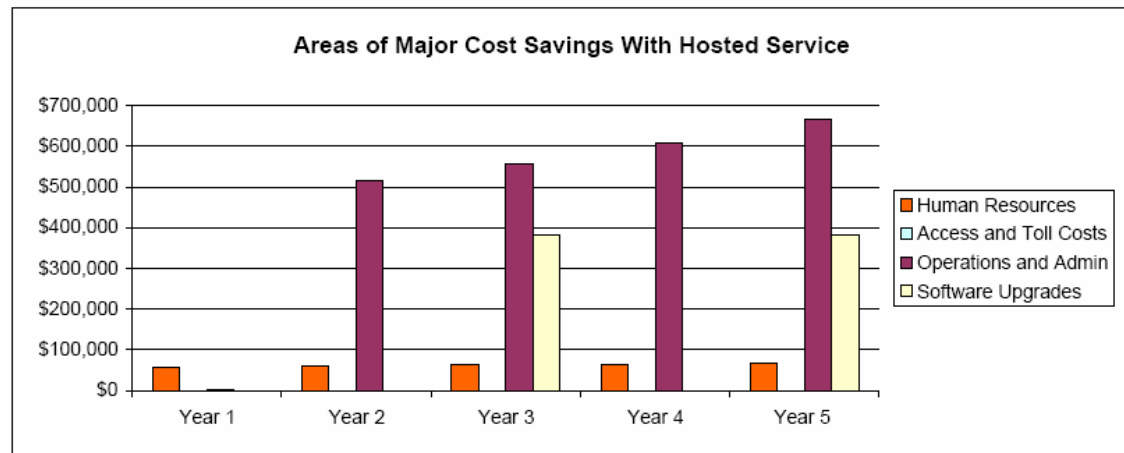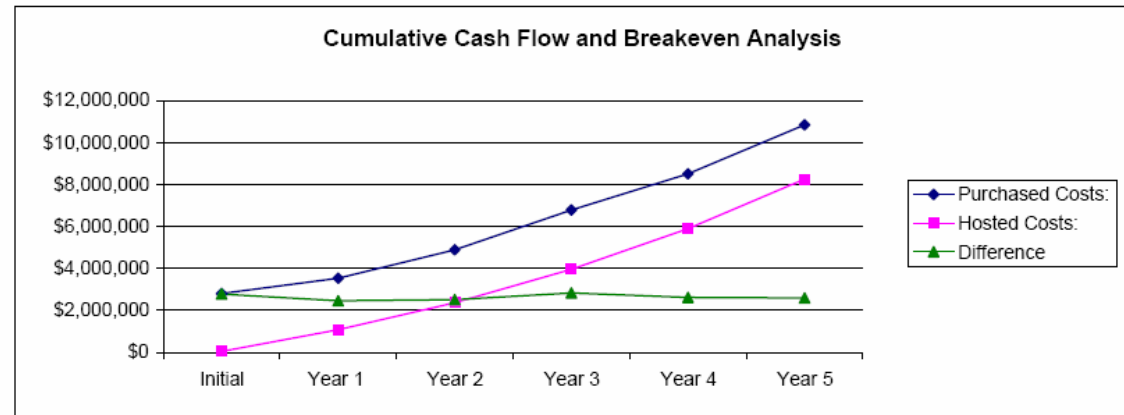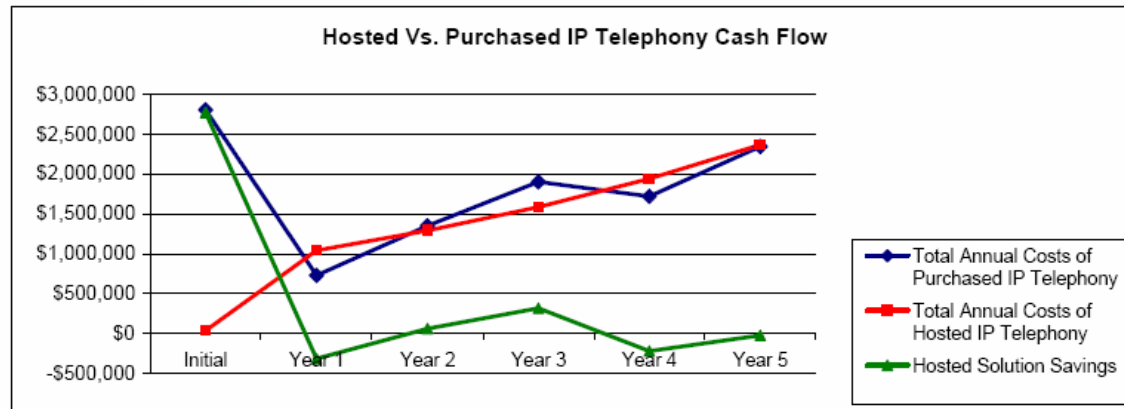
Key Points to Take Home

- Strongest arguments for Hosted Service
  - Ease/flexibility of migration
  - Elimination of maintenance and software upgrade issues and costs
  - Improved continuity assurance
  - Reduction in staffing costs/reuse of resources
  - Single point of accountability
  - Elimination of obsolescence concerns
  - Total cost of ownership

Key Points to Take Home - Continued

- ## Keys to financial evaluation
  - Total cost of ownership
  - Recognition that total cost pie percentages change dramatically and can't be compared in isolation
    - Discounts on equipment vs. service produce very different results
  - Toll bundling and human resource savings are key factors

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QUESTIONS?

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