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Changing Business Models, Panel Discussion

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Director, Concentric





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Agenda

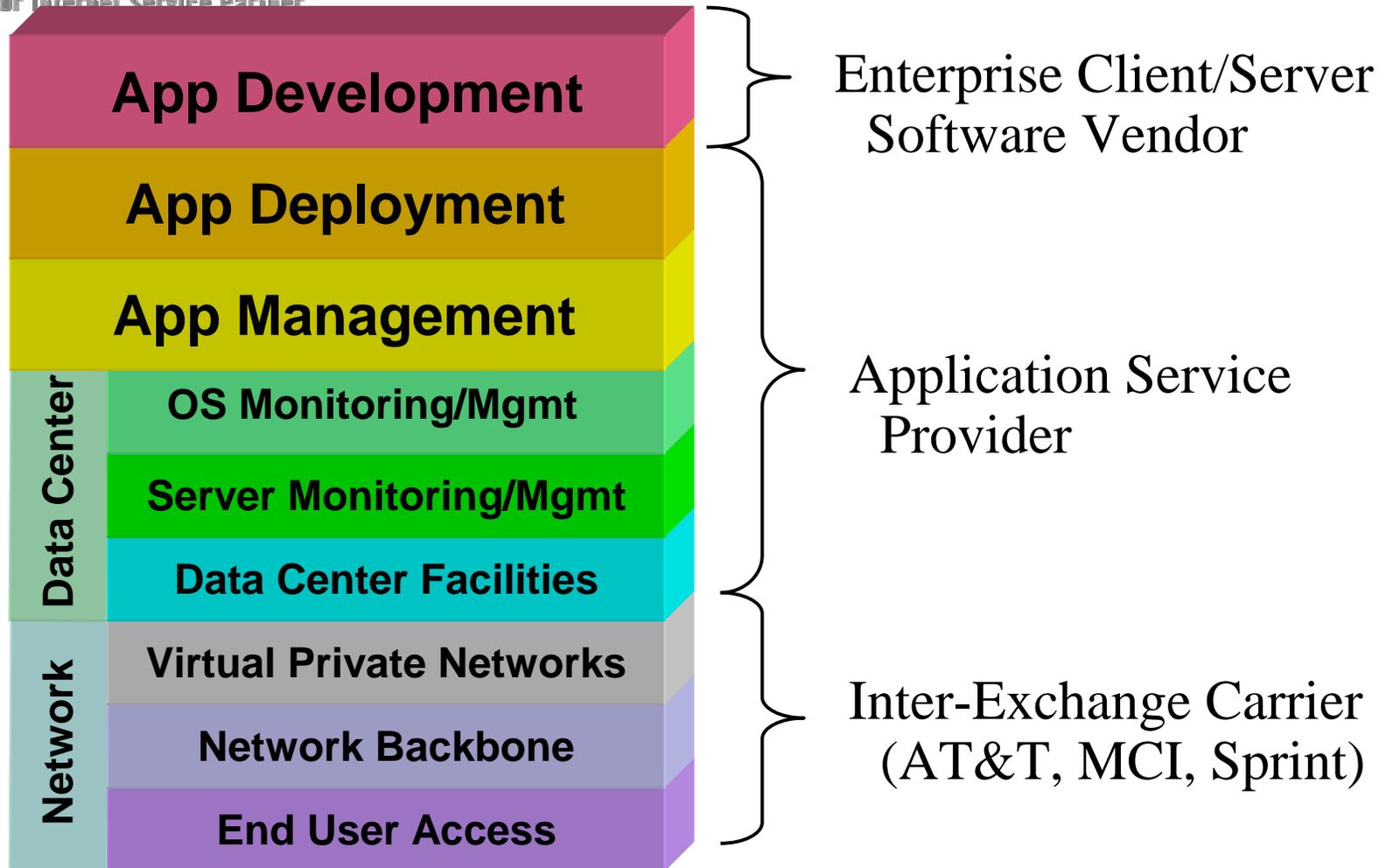
- The Anatomy of an ASP
- Why Outsource Infrastructure?
- What are Application Infrastructure Provider (AIP) Services?



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Who Does What – Circa 1999

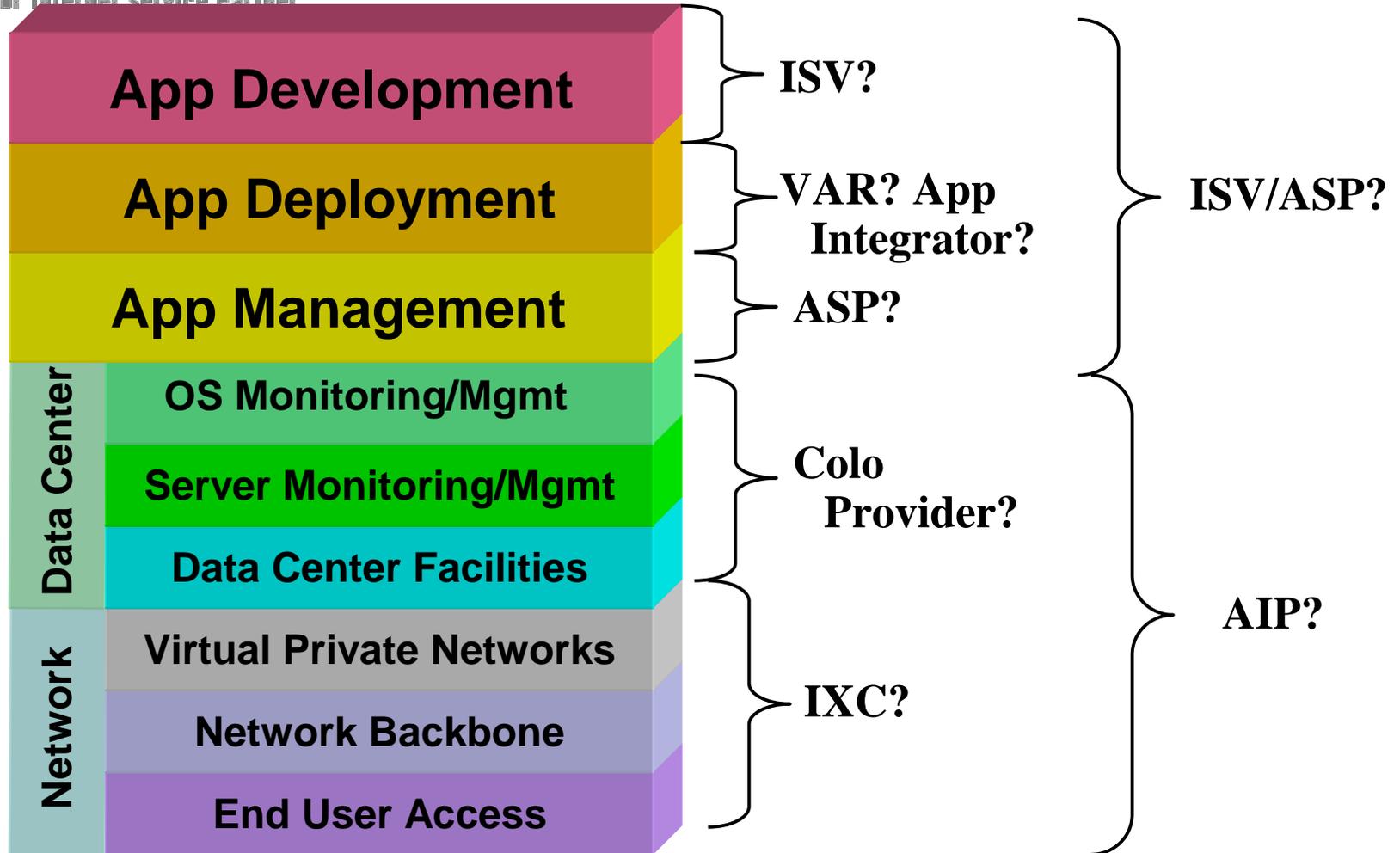




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Who Does What – Circa 2000

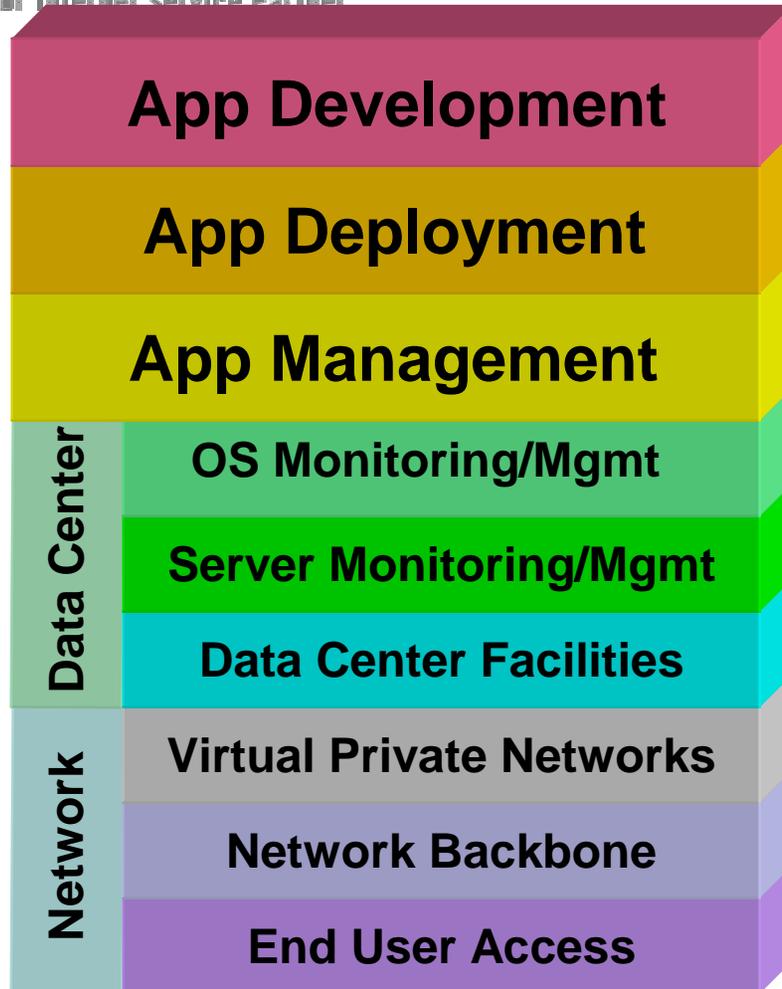




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ASP at the Center



Generally, ASP is center of hosted application ecosystem:

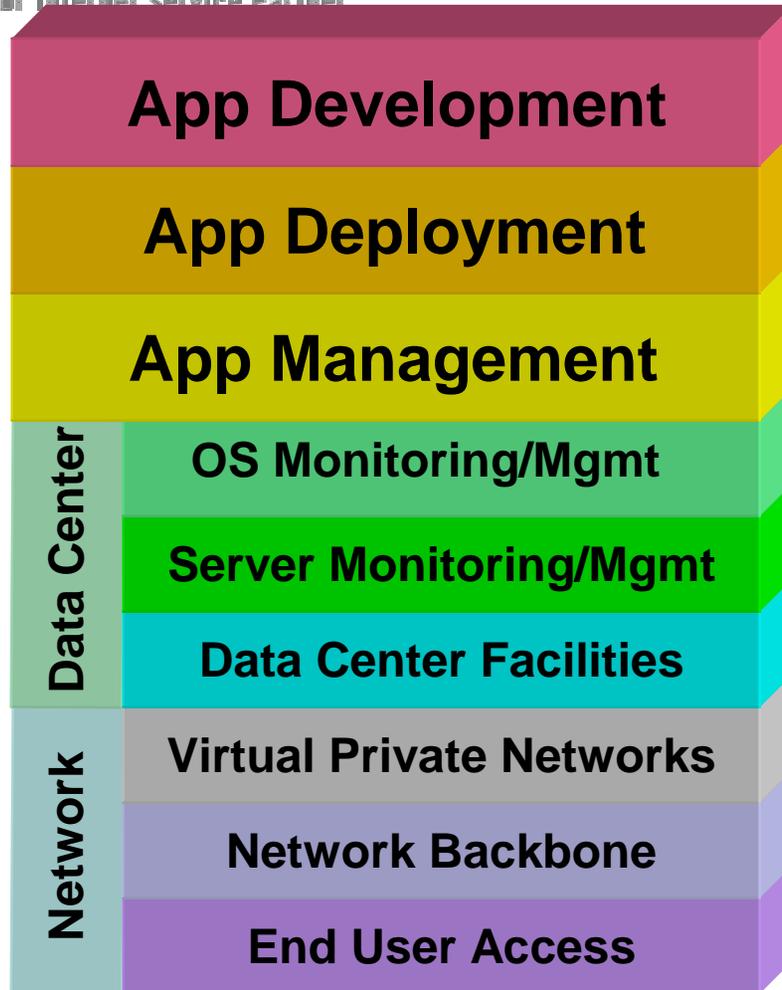
- Manages customer relationships
- Implements and maintains hosted application
- Manages ISV as vendor
- Manages Application Infrastructure Provider (AIP)



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App Infrastructure Providers



Growing consensus that ASPs ought to outsource their data center, server management, and network to Application Infrastructure Providers (AIPs)



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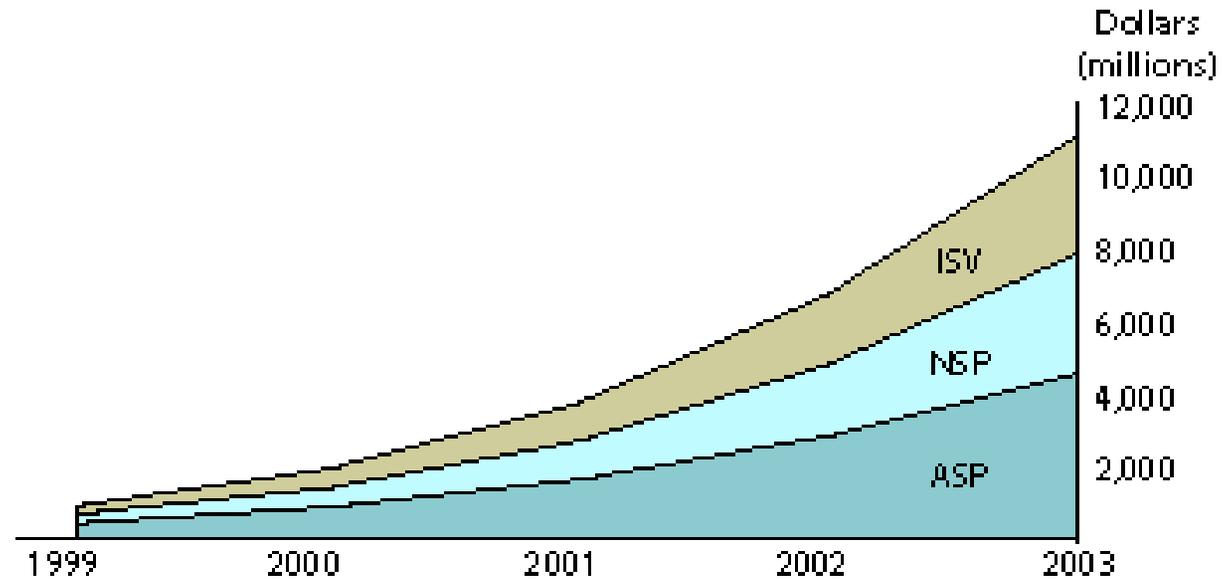
Application Infrastructure Outsourcing

Outsourcing allows ASPs to:

- Focus on their core area of expertise
- Focus on customer relationships
- Reduce cost barriers to entry
 - Infrastructure and service cost savings
- Gain speed to market
 - Avoid build-out time for infrastructure and operations
- Gain economies:
 - ... of scale
 - ... of skill



ASPs Become the Channel for ISVs and Network Service Providers



| | 1999 | 2000 | 2001 | 2002 | 2003 | |
|-------------------------------|--------------|----------------|----------------|----------------|-----------------|-----|
| Total | \$933 | \$1,964 | \$3,802 | \$6,846 | \$11,311 | |
| Application service providers | \$438 | \$868 | \$1,623 | \$2,821 | \$4,519 | 40% |
| Network service providers | \$248 | \$528 | \$1,055 | \$1,949 | \$3,298 | 29% |
| Independent software vendors | \$246 | \$568 | \$1,124 | \$2,075 | \$3,494 | 31% |

(Numbers may not add up due to rounding)

Source: Forrester Research, Inc.



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**Leader in
Value-Added Data
&
Internet Services**

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**Voice, Data,
Internet, Hosting,
E-commerce**

**Integrated
Communications
Provider**



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NETLINK®

Local Fiber & Fixed Wireless

Local Fiber

- Serving 49 markets, 19 states
- Targeting top 30 markets
- First/last mile connectivity

Fixed Wireless

- 95% of top 30 markets
- Avg. spectrum per market of approximately 1,000 MHz

Data/Internet

- 5 data centers
- 19 super POPs
- 460 access points
- 200+ private & 35 major peering arrangements
- 19 cities served with DSL
- Extensive European interconnection

Intercity Fiber

- Intercity & metro converge at NXLK managed facilities
- 24 fibers on a 16,000 mile network
- One empty conduit
- Connects 50+ cities
- IP technology



Key Infrastructure Elements for ASPs

- Data Center Facilities
- Network Connectivity
- Server Hosting and Management Services
- Value-Added Services for ASPs



Better-than-Telco-Grade Data Centers



Application Service Providers (ASPs) require hardened data centers with cabinets, cages, or private suites for locating their application and database servers



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Network Connectivity: WAN

- Connections between Data Center and Users' Premises
 - High Performance Internet Bandwidth
 - Diverse connectivity from data center to IP switch
 - Private IP network on ATM backbone
 - Private and Public Peering
 - IP network management for optimal traffic routing
 - Virtual Private Networks (VPN)
 - Managed firewall and encryption services
 - Cross-connects for access to alternative networks



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Network Connectivity: Access

- Internet/VPN access from customer premises
 - Dedicated Access Facilities (T1s,..)
 - Digital Subscriber Lines (SDSL, ADSL,...)
 - Dial Internet Access
- VPN
 - Managed firewall and encryption services



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Server Hosting Services

- Colocation (or “CoLo”)
 - Data center hosting services for housing customer-owned servers
- “Managed Servers”
 - Provider-owned servers set up on behalf of customers for their dedicated use
 - Proactive server and OS monitoring and management
 - File system backup
 - Service Level Agreements for guaranteed uptime



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Value-Added Services

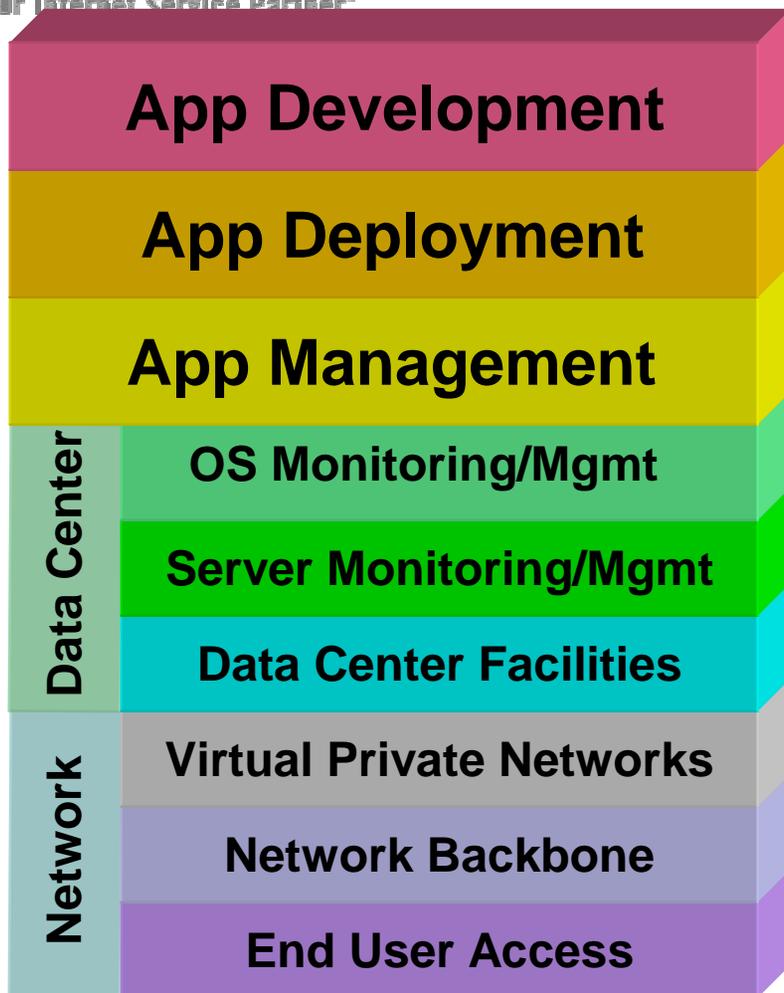
- Online customer reports
 - Bandwidth utilization
 - Web traffic analysis
 - Performance metrics
- Additional IP address/DNS services
- Software installation
- Database management
- Configuration consultation
- RAID configuration for redundant hard drives
- Media management (swapping tapes,...)
- Project Management
- Custom services



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Unabashed Commercial Message



Concentric Network launched the first AIP services in 3Q99.

Won 2000 Product of the Year from Network Magazine for ConcentricAIP

