Mobile Computing Service Management

At The Boeing Company
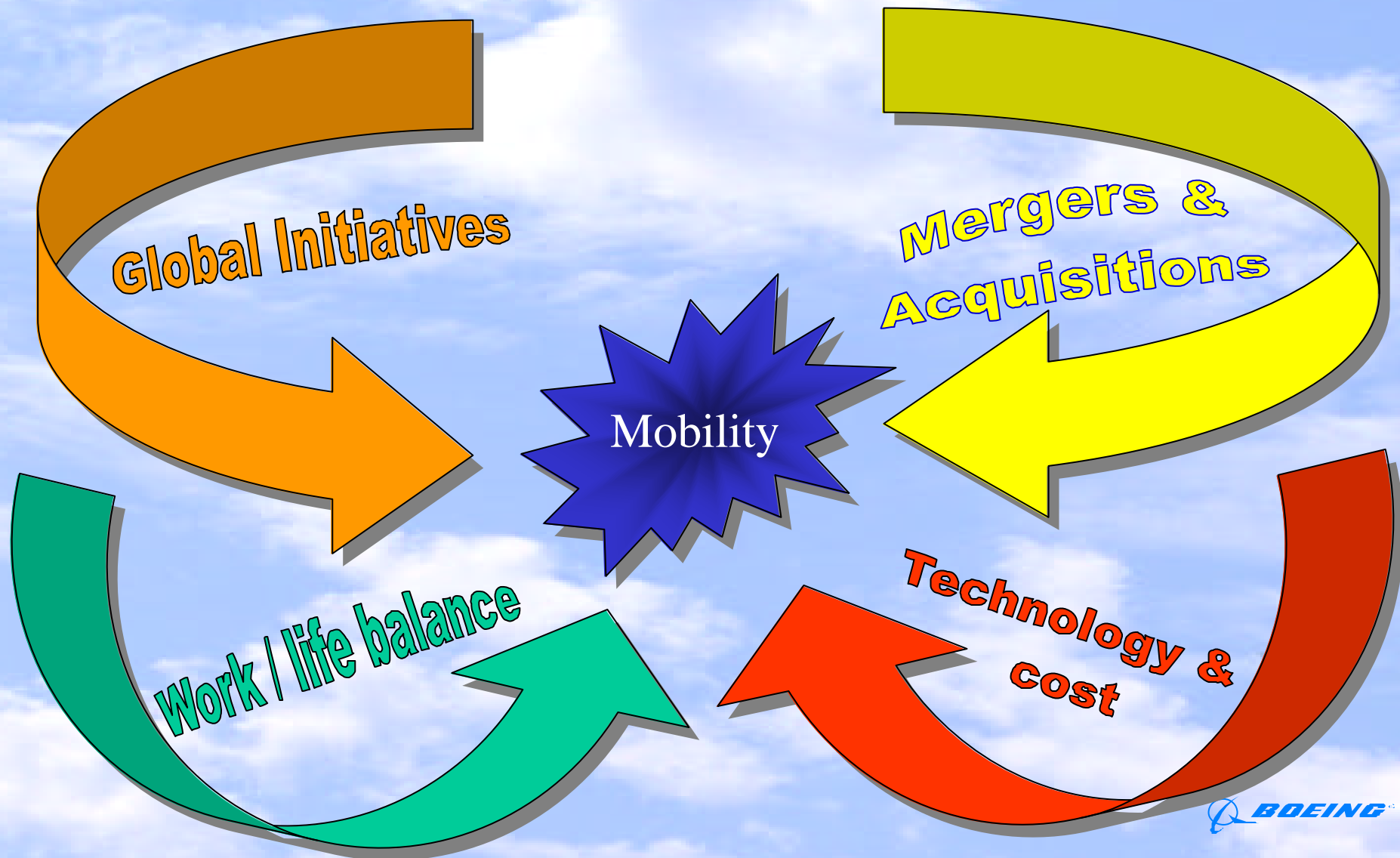
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Senior Program Manager – Mobile Computing

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About The Boeing Company

- World's largest aerospace company
- World's largest manufacturer of commercial and military aircraft
- Nation's largest NASA contractor
- Largest US Exporter
- 2000 revenues were $58 billion
- Customers in 145 countries
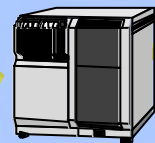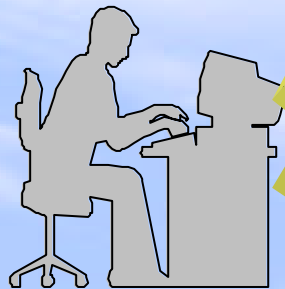- 180,000 employees in 60 countries and 26 states

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# In '96 & '97, business drivers & environment accentuated the need for mobility

Global Initiatives

Mergers & Acquisitions

Mobility

Work / life balance

Technology & cost

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Mobility Services Goals

Goals:
- **Simplified/Seamless**
- **Proactive/Preventative**
- **Tailored to User**
- **Assets Protected**
- **Compliance Assured**

Intelligent Service Agent

Initiating Service

Using Service
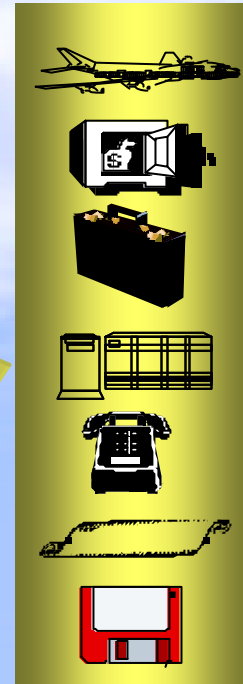
	Travel Arrangements
	Asset Protection
	Licenses Registrations
	Account Setup Configuration Assurance
	Phone Numbers
	Training
	Provisioning
	Computing Service
	SRC Help

SERVICE LINKAGE

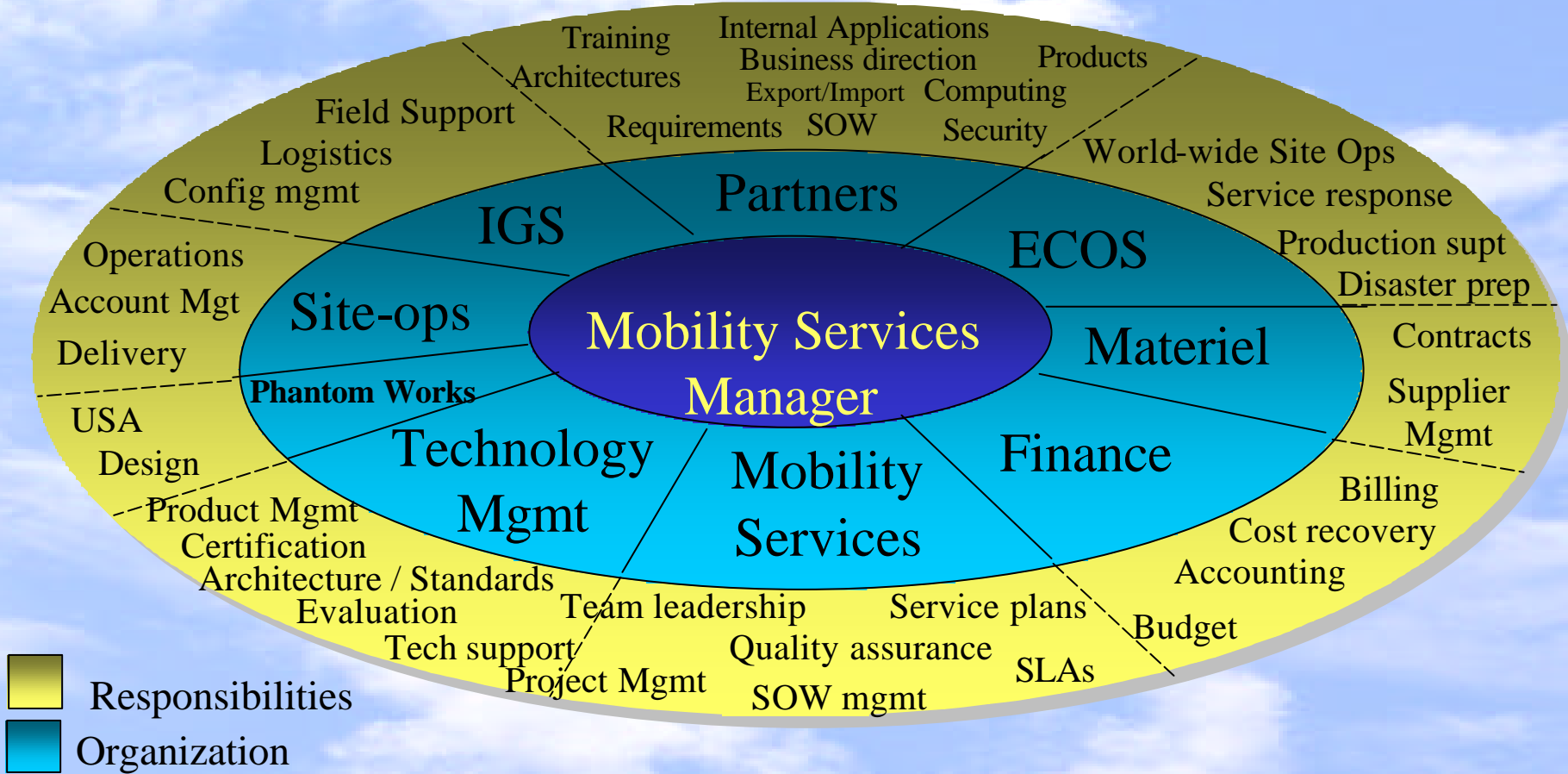| Communication	Config Mgmt	Standards

The Beginning – A Corporate Initiative

- **Executive Sponsorship**
  - Mobile Computing "vision" established
  - Potential recognized at the highest corporate level
  - Leading the way by example
    - Among the first to use the services
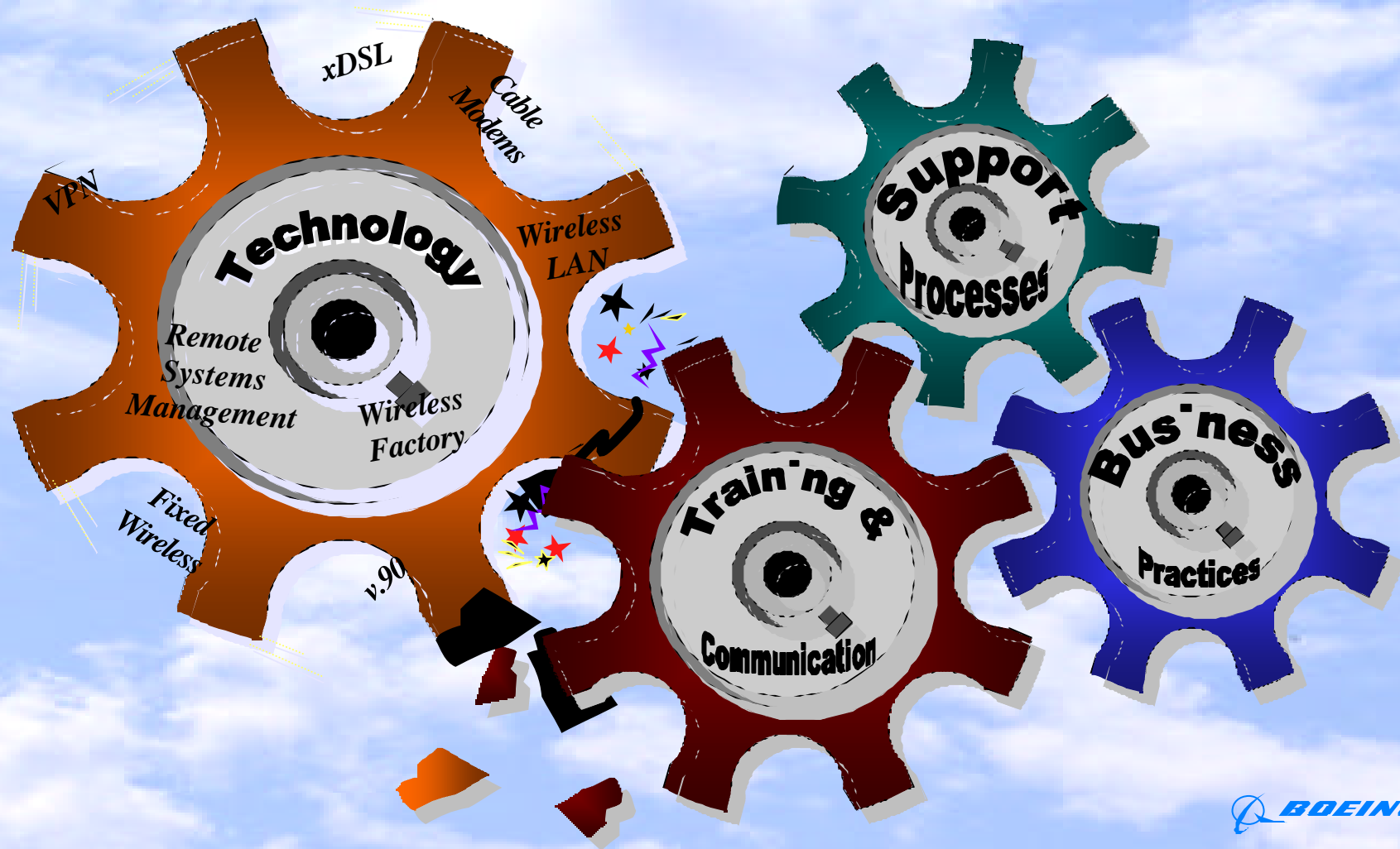   - Not just "talk the talk," but "walk the walk."

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Mobile Computing Service Team Approach

A "General Practitioner," working with specialist to improve the overall health of mobile computing.

Implementation Approach: Leverage <u>mature</u> aspects of technology & implement it with a holistic perspective.

Successes

- **Ubiquitous deployment of standardized mobile computing environment across sprawling campuses, and multiple domestic and international sites**
  - *World class internal data network*
  - *Distributed computing environment*
- **> 60,000 Remote access users (out of 180,000 PC users)**
- **Mobile Users**
  - **1500 International residents**
  - **1000 International travelers**
  - **18,500 domestic travelers**
- **Smithsonian Laureate for Computing Innovation**

Successes

Personal Firewall
Protection

VPN & Strong
Authentication

Going Mobile
Electronic News

High Speed
Fixed Remote
Access

Foreign Travel
Trigger

**Telecommuter
6%**

**Occasional
Traveler
33%**

**Day Extender
32%**

On-demand mobile
accessories

RAS Specialized
Help Desk

**Frequent
Travelers
8%**

**Campus Roamer
21%**

Laptop service
counters

Touch-down
points

World-Wide VPDN

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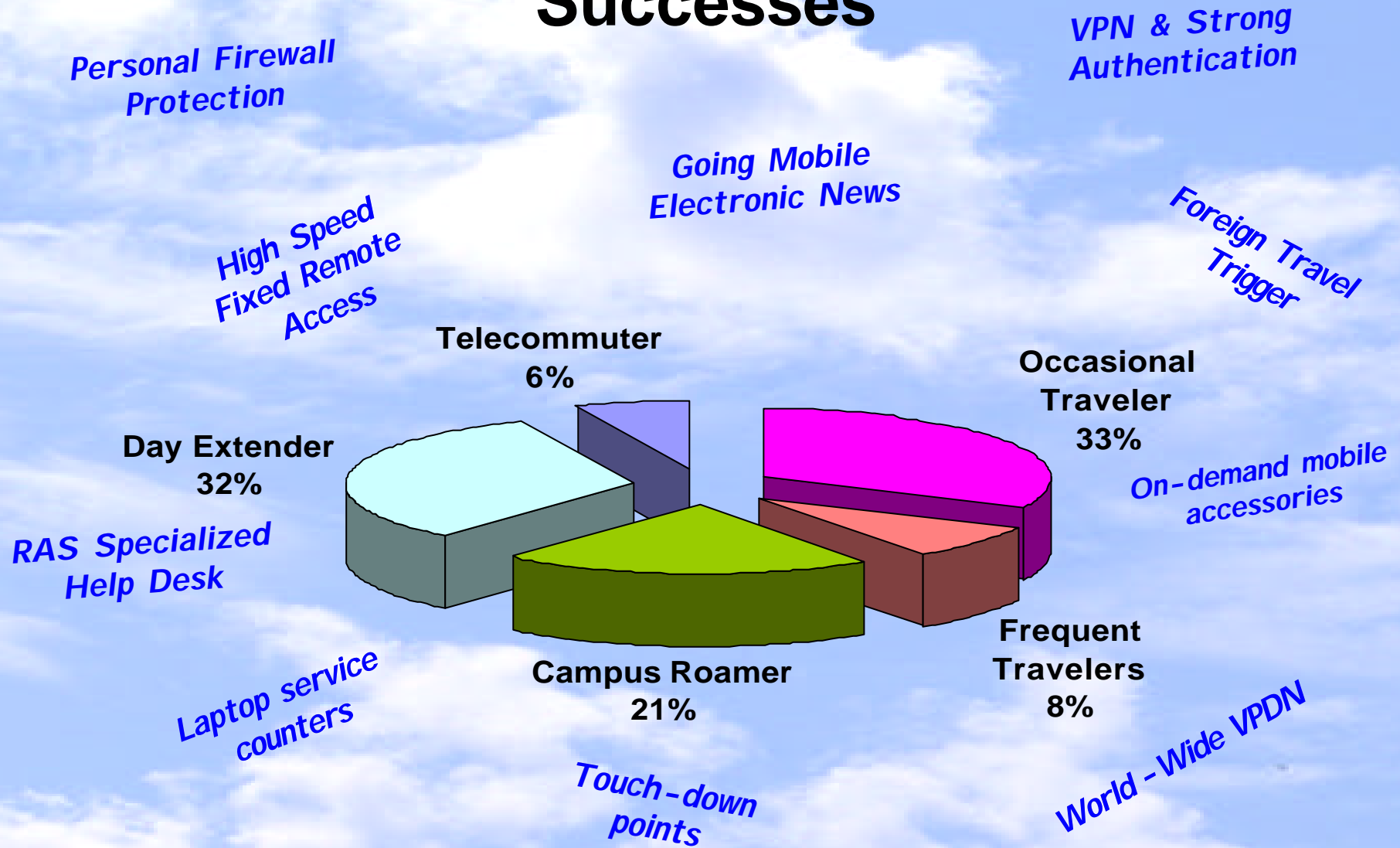
Lessons We've Learned

- ## Practices that work
    - Build mobile computing triggers into business processes
    - Strong Executive sponsorship
    - Cross functional Service Management
        - Mobile computing advocacy in all related areas technical and functional areas of the IT and non-IT business
    - Holistic approach
        - Managing the entire service from cradle to grave
        - Synergism of multiple implementation and support projects
    - Standardization -   when-ever possible

    - AND MOST IMPORTANT………

- Teach them how to use it
- Keep it simple

Lessons We've Learned

- **Practices to AVOID**
  - *Assume users are computer savvy*
    - *They are typically experts in their fields*
    - *Their field is most often NOT computing*
    - *Computing is simply a means to an end… not an end in itself*
    - *If you can't explain it to your mother or grandmother, don't do it.*
  - *Always use leading edge technology*
    - *Understand leading edge technology, but use mature technology*
  - *Assume your current support model is sufficient*
    - *Users are often out of the "protected" environment of the corporate campus*
    - *New methods of self-help and self-healing need to be deployed*
    - *Support staff & help desk staff need specialized expertise*
  - *Leave all security implementations up to the security department*
    - *Their expertise is quality tools to protect company assets*
    - *Your focus should be simplified use of the tools they provide*
    - *End user compliance often depends on ease of use*

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Current Challenges
for Mobility Services

- **Simplification & enhancement of existing "wired" services**

- **Wireless technology integration**
  - **Gather, validate, and document customer requirements**
  - **Research wireless handheld technology**
  - **Facilitate the cross-functional design and build for implementation of services**

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Wireless – Status/Accomplishments

- **Web based requirements survey complete**
- **Research through vendor presentations & wireless SMEs**
- **Wireless summits completed**
- **Standards for PDAs established**
- **Wireless Factory network implementations underway**
- **Knowledge worker project launched**
- **Multiple pilots being initiated throughout the enterprise**

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Wireless – Experiences to date

- **Environment is always dynamic and new**
- **Education of stakeholders is key**
- **Communications with all levels must be ongoing**
- **Production use is widely different from knowledge worker use**
- **There is much more to this than devices and networks**

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Wireless -
The Hurdles Ahead

- **Wireless Security is inadequate/immature**
  - Adequate work-around adds use complexity
- **Technology churn/short lifecycle**
  - Hinders standardization efforts
  - Raises operational & infrastructure cost
- **Managing customer expectations**
  - Connection is not everywhere all the time
  - Synchronization tools not yet equal to desktop
- **Management of unlicensed radio frequencies**
- **Work/life impacts**
  - Anytime/anywhere connectivity becomes everywhere/all-the-time
  - Danger that users will become "too-connected"