

Session Initiation Protocol: Making SIP Work in Your Network

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What Will Be Covered

SIP Basics

SIP As a Business Tool

SIP Adoption Caveats

Examples of SIP-Enabled Solutions

SIP Basics





Pop Quiz!

1. **Session Initiation Protocol (SIP)** is defined as:

- a) An application layer peer-to-peer signaling protocol used to establish, manage, and terminate multimedia sessions between intelligent devices.*
- b) A protocol developed by the Internet Engineering Task Force (IETF) that leverages and builds upon numerous other well known protocols such as HTTP, SMTP, RTP/SRTP, TCP, UDP, and IP.*
- c) A protocol originally specified in RFC 2543 and later completely reworked in RFC 3261 and companion documents.*
- d) All of the above.*



Pop Quiz!

2. Which of the following statements are true:

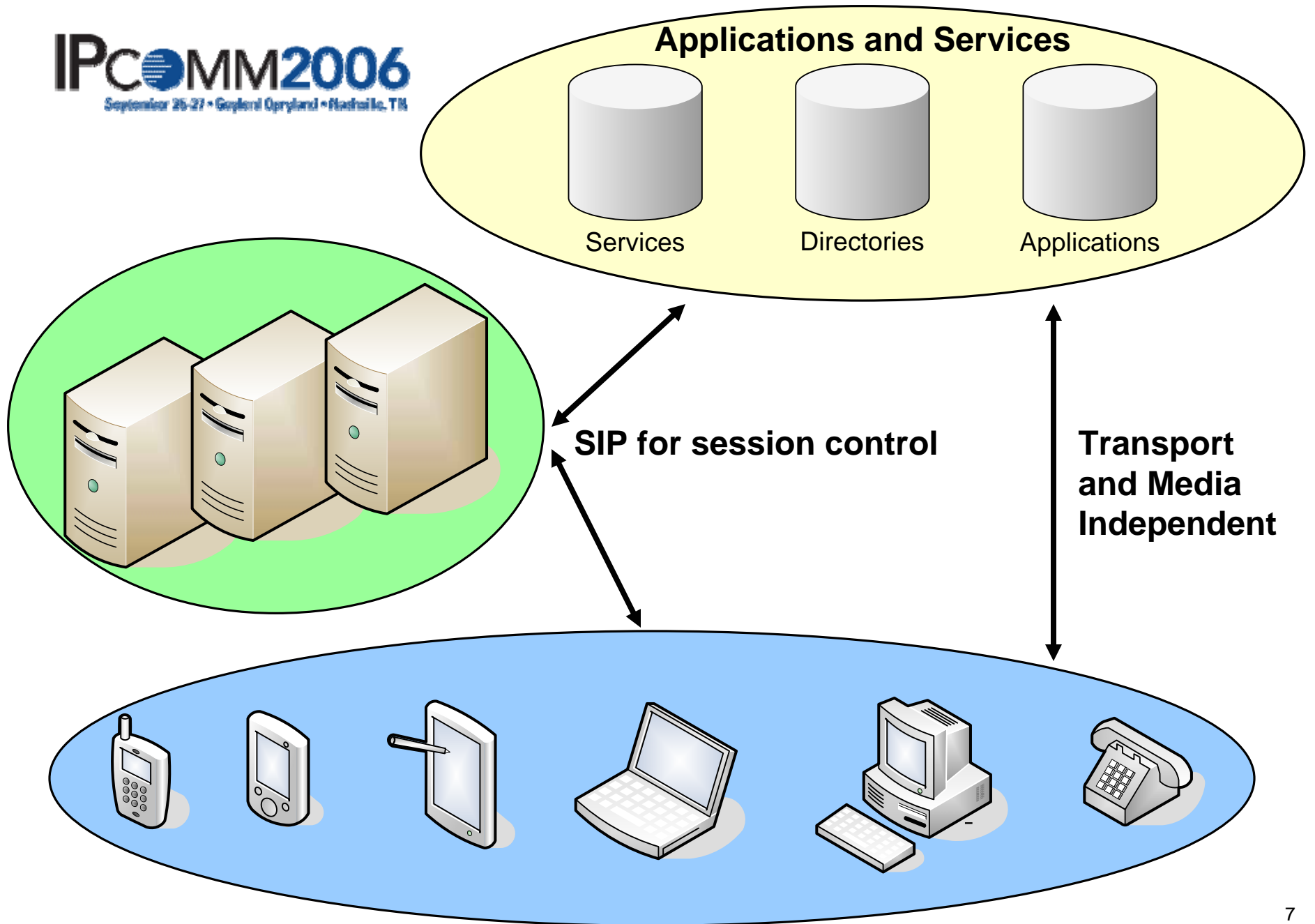
- a) SIP is a signaling protocol that is independent of the transport protocol and physical transport media used to conduct a session between end devices.*
- b) SIP does not incorporate or mandate specific Quality of Service (QoS) or security capabilities or protocols.*
- c) SIP provides mechanisms to control sessions between end devices, but does not dictate or limit the applications and services that may use these sessions.*
- d) SIP controls the session but does not specify the features that a given session can or will support.*
- e) All of the above.*



Pop Quiz!

3. What devices does SIP define:

- a) *Clients who request and receive information*
- b) *Proxy servers that acts as the traffic cop for routing client requests*
- c) *Redirect servers that redirect a client to another server to complete a given request*
- d) *Registrar servers that keep track of location information for clients in their domain*
- e) *All of the above.*



SIP Proxy, Redirec



So...What is SIP really designed to do?

SIP is the underlying structure that facilitates:

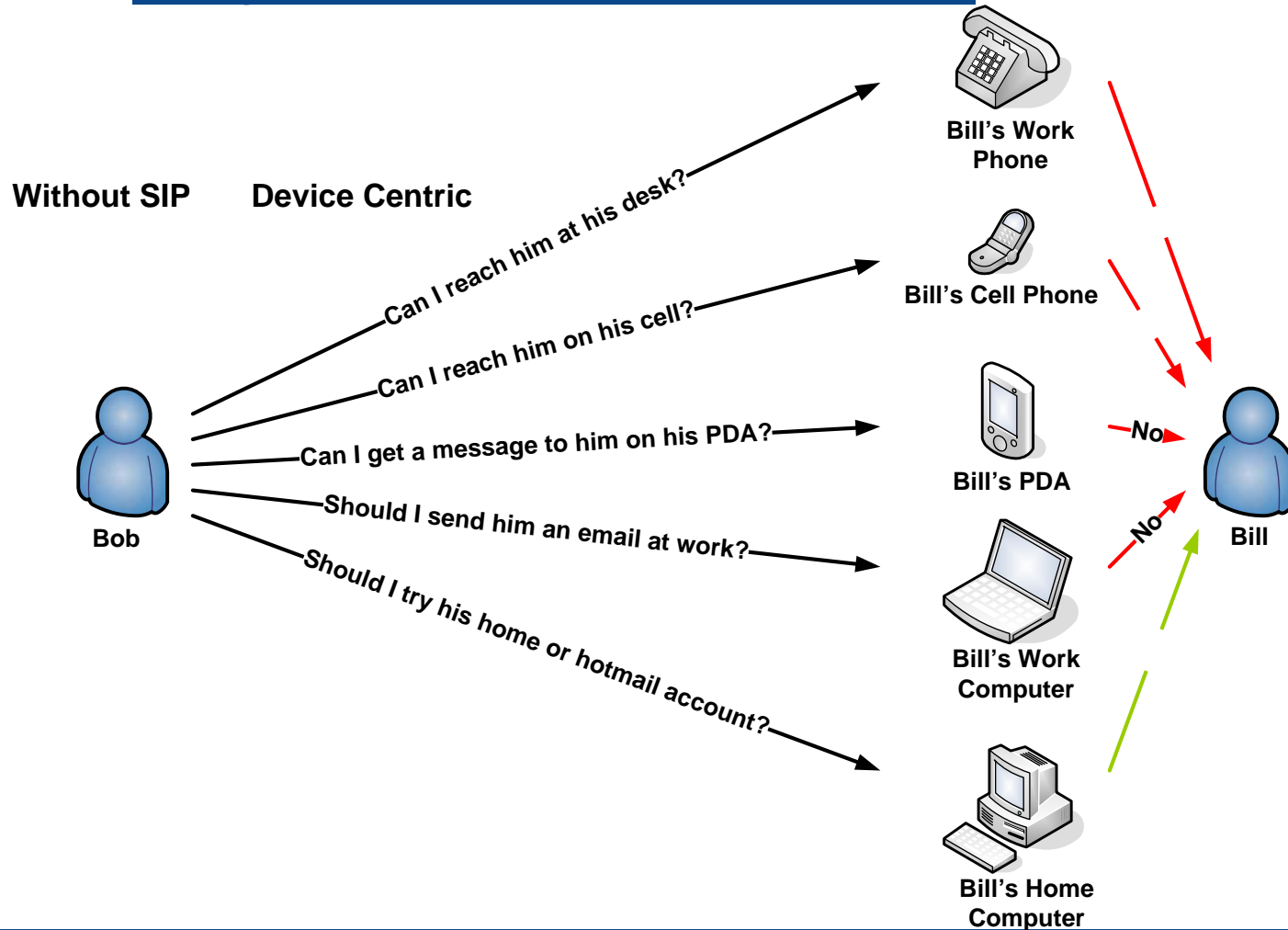
The establishment of sessions between end clients using virtually any service or application

From virtually any connected device

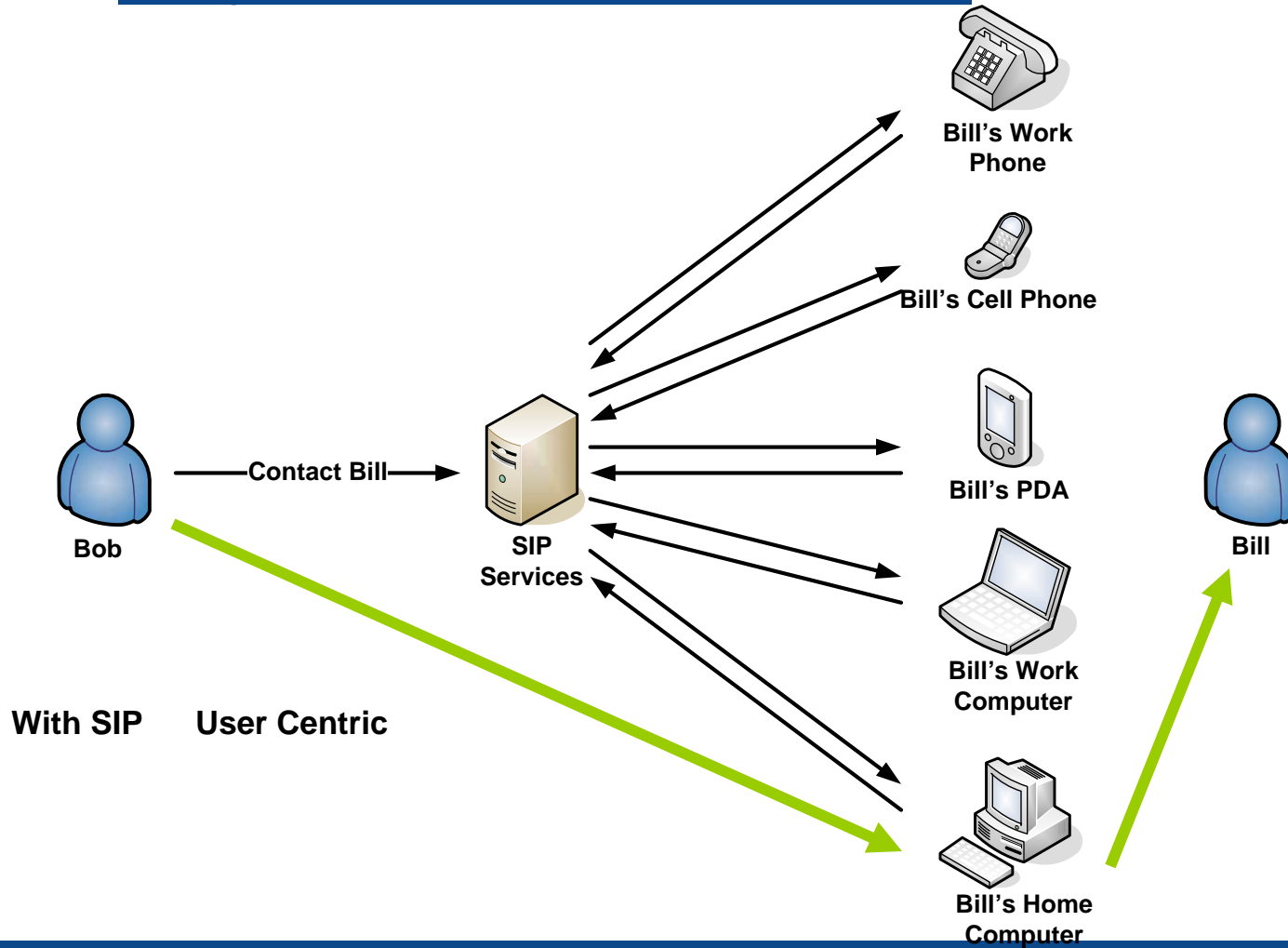
Located virtually anywhere

Without burdening the end-clients with the complexity of establishing or managing the requested session

Why is that so important?



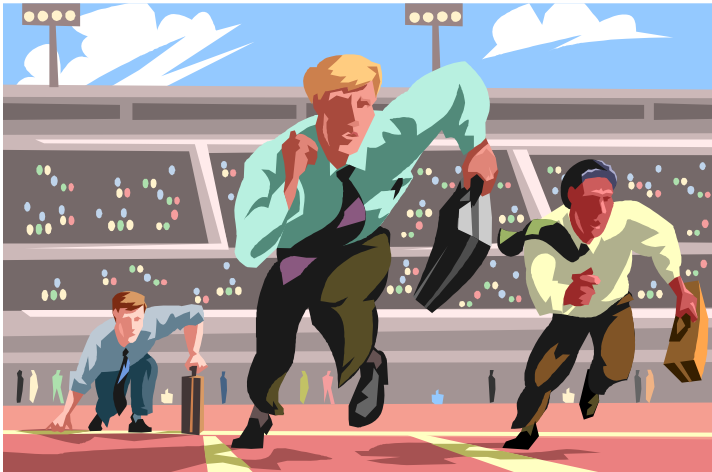
Why is that so important?



SIP as a Business Tool



What are Some Common Business Challenges?



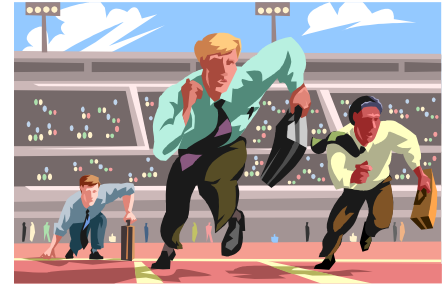
Staying Competitive



Containing Costs



Productivity



Staying Competitive

**Business
Competition**

***SIP-Enabled
Multimedia Apps
And Services***

- Reduced Cycle Time
- Improved Customer Sat
- New Lines of Business

**Competition for
Skilled Staff**

***SIP-Enabled
Multimedia Apps
And Services***

- Location is unimportant
- The “office” is anywhere
- Workers are accessible



Containing Costs

Improve Efficiency

Reduce Spending

***SIP-Enabled
Multimedia Apps
And Services***

- Reduce Development Time
- Shorten Time to Market

- Curtail Business Travel
- Lower Paper and/or Electronic Storage Consumption



Productivity

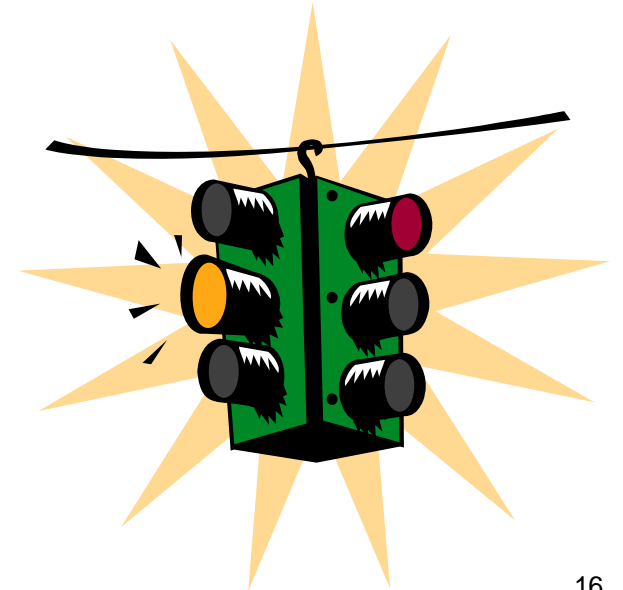
Effectively Leveraging
Knowledge Workers

Employee Satisfaction
And Lifestyle Issues



- Collaboration
- Presence
- Personalization
- Freedom of Location

SIP Adoption Caveats





SIP Alone is Not Enough

SIP is a solution enabler rather than a solution itself

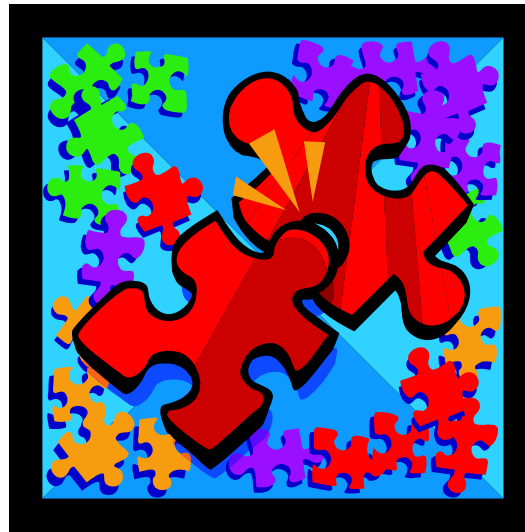
Applications and business processes must be re-engineered to properly leverage the benefits of SIP

Business process realignment must be championed from the top down



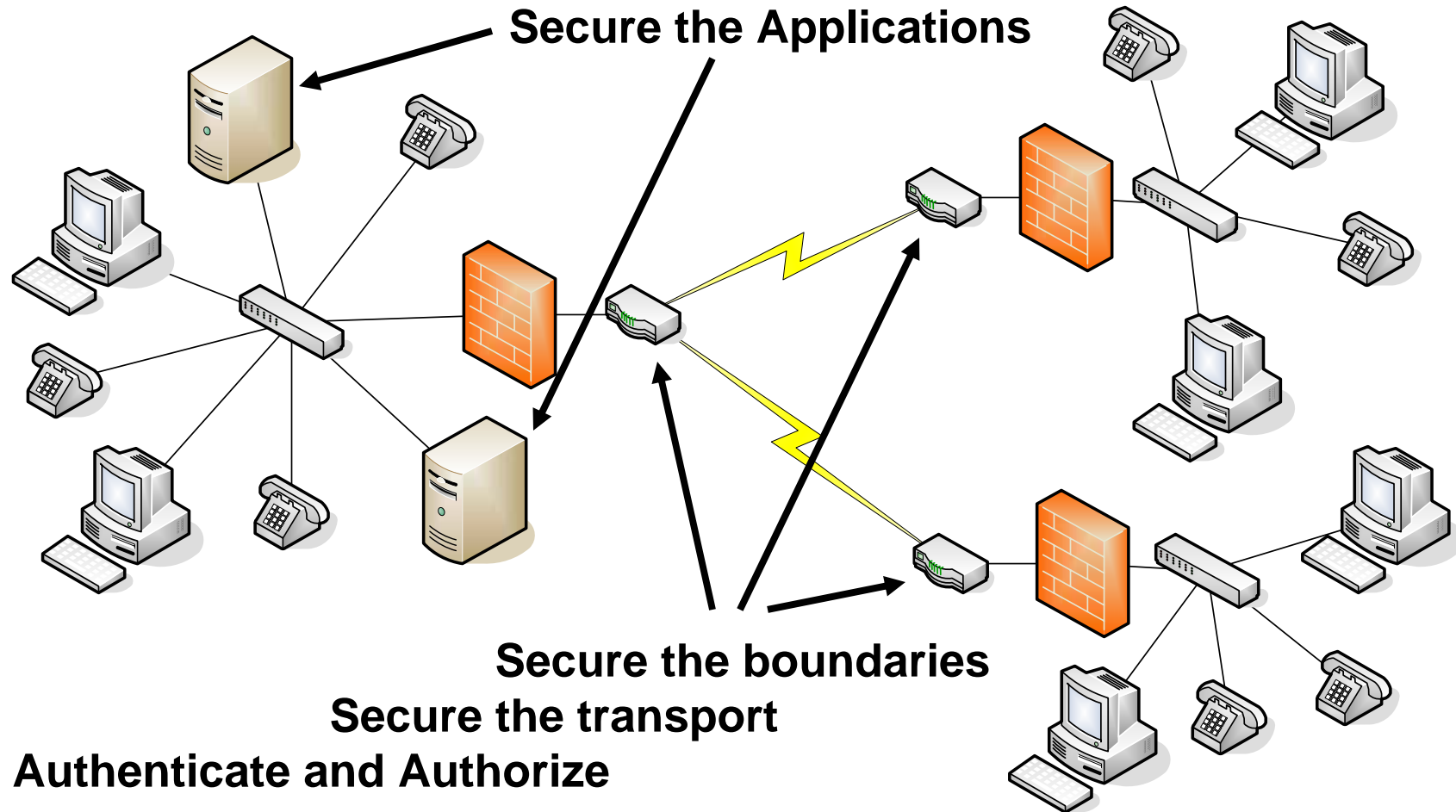
Simplicity is a Double-Edged Sword

INTEROPERABILITY

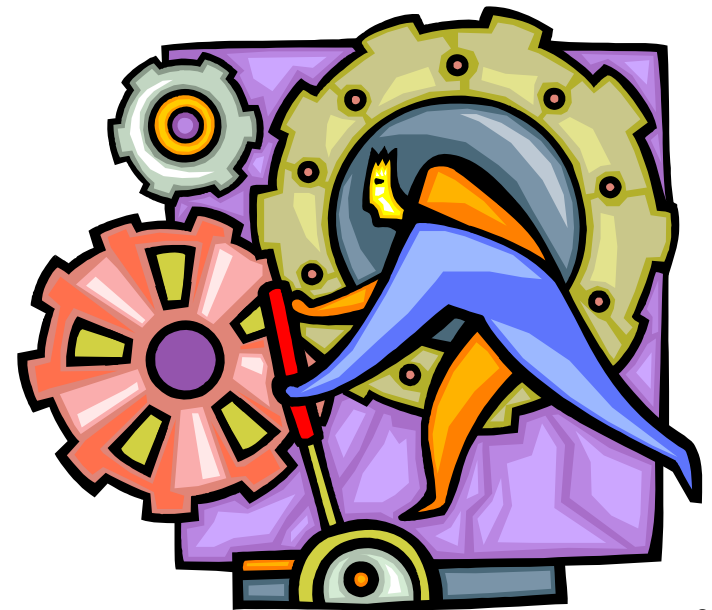


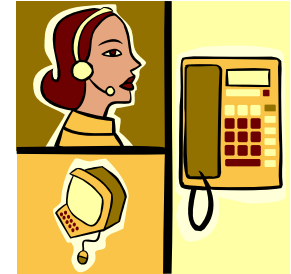


Design in Security From the Start!!



Examples of SIP-Enabled Solutions

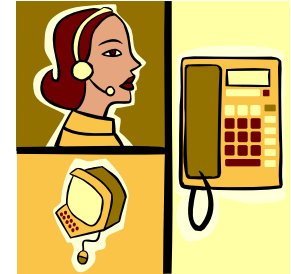




Example 1: SIP-Enabled Contact Center

Who: A direct response company, based in the Mid-Atlantic States, that specializes in processing responses for catalogs, associations, and fundraising organizations/campaigns.

The Problem: The need for a highly flexible and easily customizable contact center environment that would facilitate rapid development and deployment of sophisticated and personalized contact center and integrated enterprise applications.



Example 1: SIP-Enabled Contact Center

The Solution:

A SIP-Enabled bundled communications application software suite that is highly customizable with a GUI based application generation and administration tool.

The Benefits:

- Eliminated dependence on IT for app dev
- Enabled better maintenance of service levels across multiple sites
- Facilitated virtual call center environment and work-at-home program
- Reduced maintenance costs
- Saved 30% in agent training costs
- Reduced agent idle time by an average of 10%



Example 2: SIP-Based IP PBX Solution

- Who:** A community Credit Union in the Mid-West serving 21 counties through a headquarters location and 6 branch offices.
- The Problem:** The need for standardized telephony and call-handling and routing services across all locations with simplified and intuitive administration and management capabilities. A further need for customer interaction enhancing capabilities.



Example 2: SIP-Based IP PBX Solution

The Solution:

A SIP-Based fully integrated communications interaction solution for processing all types of communications.

The Benefits:

- Presence capabilities reduced paging from roughly 10 per hour to fewer than 10 per day
- Employee productivity improved due to deployment of Unified Messaging available via phone, email client, and web browser
- Customer interaction and customer satisfaction improved
- Admin and maintenance costs were reduced



Example 3: Intel IPT Trial

Who: Intel

The Problem: To determine if there is truly a viable business case for the deployment of IP telephony within Intel, and to identify and quantify the benefits of such a deployment.



Example 3: Intel IPT Trial

The Solution:

An open standards based IPT environment integrating SIP-compliant products from numerous manufacturers.

The Benefits:

- Hard cost savings in the range of 55% by deploying open standards based IP PBX products in place of proprietary TDM PBX products
- Hard cost savings in excess of 52% per year in MAC costs
- Reduction in data center floor space by as much as 67%



Example 3: Intel IPT Trial

The Benefits (Continued):

- Reduced maintenance costs
- Reduced power and HVAC requirements
- Reduced building wiring costs
- Reduced cost for set up and use of outside conferencing services for small (6 or fewer participants) audio conferences
- Reduced calling card costs by supplying road warriors with softphones
- End user time savings of 2.7 man-days per person per year
- Productivity gain of \$480 per end user

In Summary...





Key Points to Take Home

✓ SIP simplifies communication by facilitating a user-centric model.

✓ SIP makes communications services available to and simplifies integration with business applications.

✓ SIP enables new applications that reduce cost, improve user productivity, and strengthen customer interaction.



QUESTIONS?

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