



# Simbioza Skype i SCCP protokola u poslovnom okruženju

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Welcome to the Human Network.



20. i 21. ožujka 2008.  
Hotel Dubrovnik Palace  
Dubrovnik

Enable Your Network  
Empower Your Business

Cisco Expo  
2008



# Bridging Skype and SCCP protocol in enterprise environment

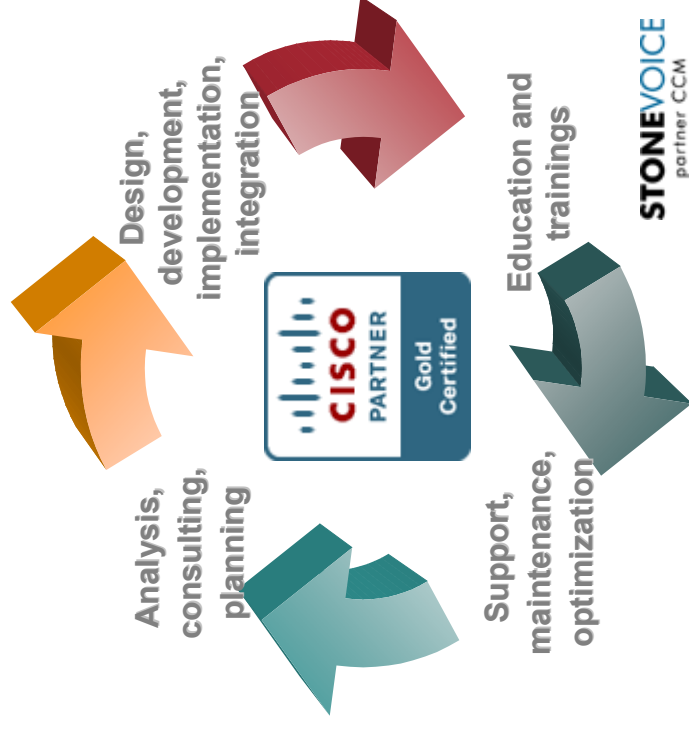
- ⊙ Introduction
- ⊙ What is this technology about (business cases)
  - ⌘ Toll bypass or local calling for any type of call
    - ☎ Skype to CUCM
    - ☎ CUCM to Skype
    - ☎ CUCM to POTS using SkypeOut
- ⊙ Technical info
  - ⌘ Installation and prerequisites
  - ⌘ Integration with CUCM
  - ⌘ Extra features
  - ⌘ Administrators tasks and tools
- ⊙ Conclusion and Q&A



# About Mrežne tehnologije VERSO d.o.o.

- ⊙ IP Telephony
- ⊙ voice and data platforms for service providers
- ⊙ fixed-mobile convergence
- ⊙ GSM-WiFi integration
- ⊙ IP MPLS network design

- ⊙ OSS/BSS integration
- ⊙ fault, performance and service level management
- ⊙ business consulting, education and training for technical and back-office staff



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## Relevant quotes

- ③ “About one third of the 171 million registered users worldwide use Skype as a business tool”  
*Scott Bagby – Skype Director of New Market Development*
- ③ “It’s hard to distinguish now between an end user as a consumer or as a business end user, we are going to be much more involved in that end-user environment”
- ③ “Whatever drives volume, drives the technology and drives the application. Well, there’s no bigger volume than consumer volume”
- ③ “The employees want to use a certain consumer application you might introduce something similar that is safe to use.”

*Charlie Giancarlo – Cisco's Chief Development Officer*





# SkyStone

- © **SkyStone** interconnects your Cisco Unified Communication Solution in the office to the “Skype World”
- © **SkyStone** is a Skype Gateway that allows connecting Skype network with H.323 and SIP networks (no extra voice board and seamless integration).
- © **SkyStone** lets the Unified Communications world benefit of the Skype services used by millions of users today.



*UC for Enterprise*

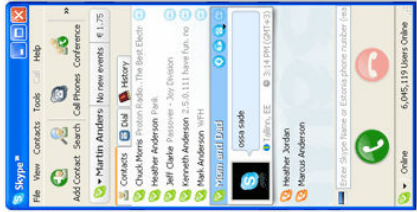
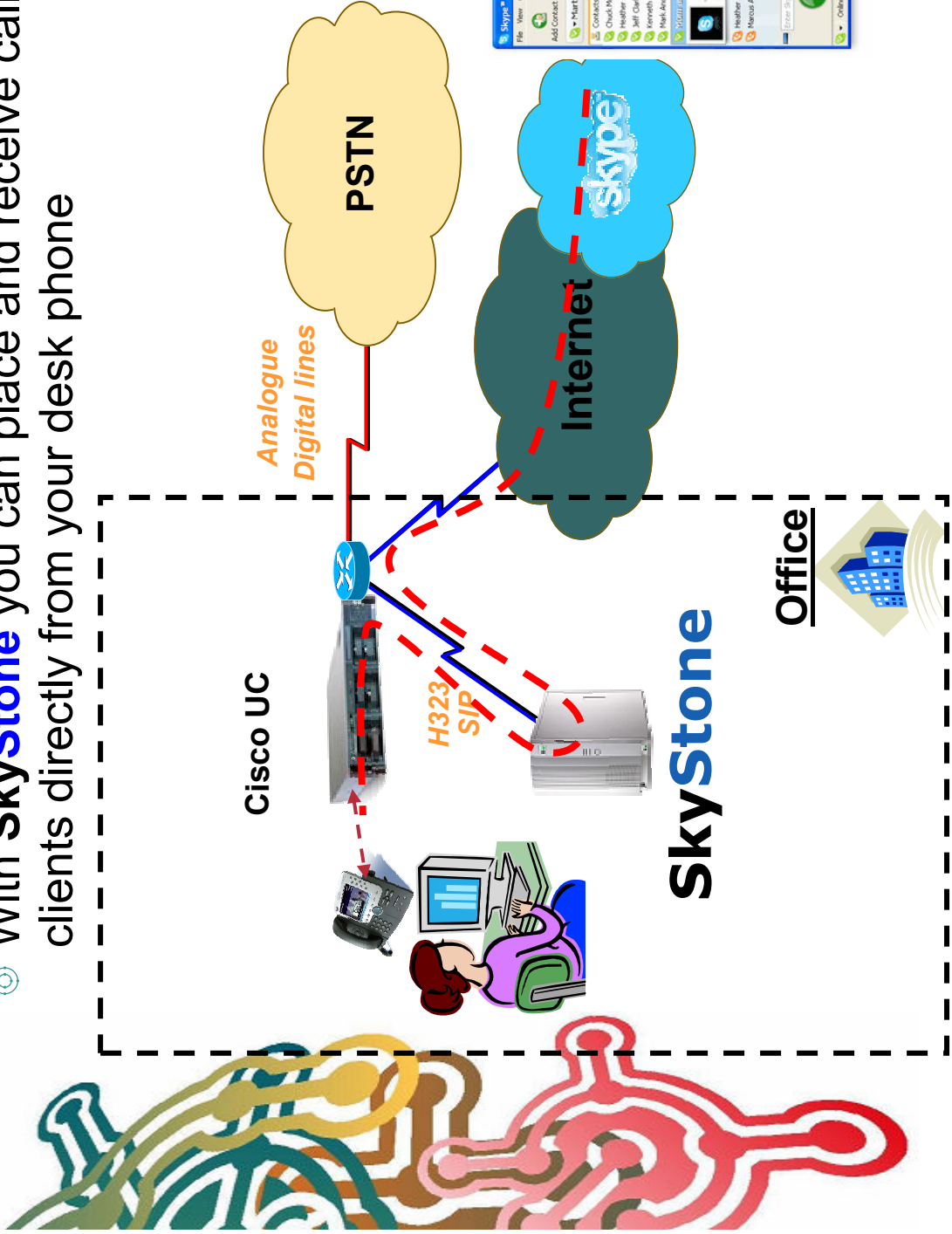


*VoIP & IM for Consumer*

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# Today with **Skystone**: Convergence

© With **Skystone** you can place and receive calls to Skype clients directly from your desk phone



**Remote Employee**

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# SkyStone application examples

## © INBOUND

- ❖ You can receive calls from Skype accounts directly on desk phones in the office
- ❖ You can offer “click to talk with us for free” button on your website!
- ❖ You can receive calls from international numbers through the SkypeIn service directly on desk phones in the office using Skype as a “Virtual Carrier”
- ❖ You can offer your international customers local phone numbers for customer care in each country you would like!

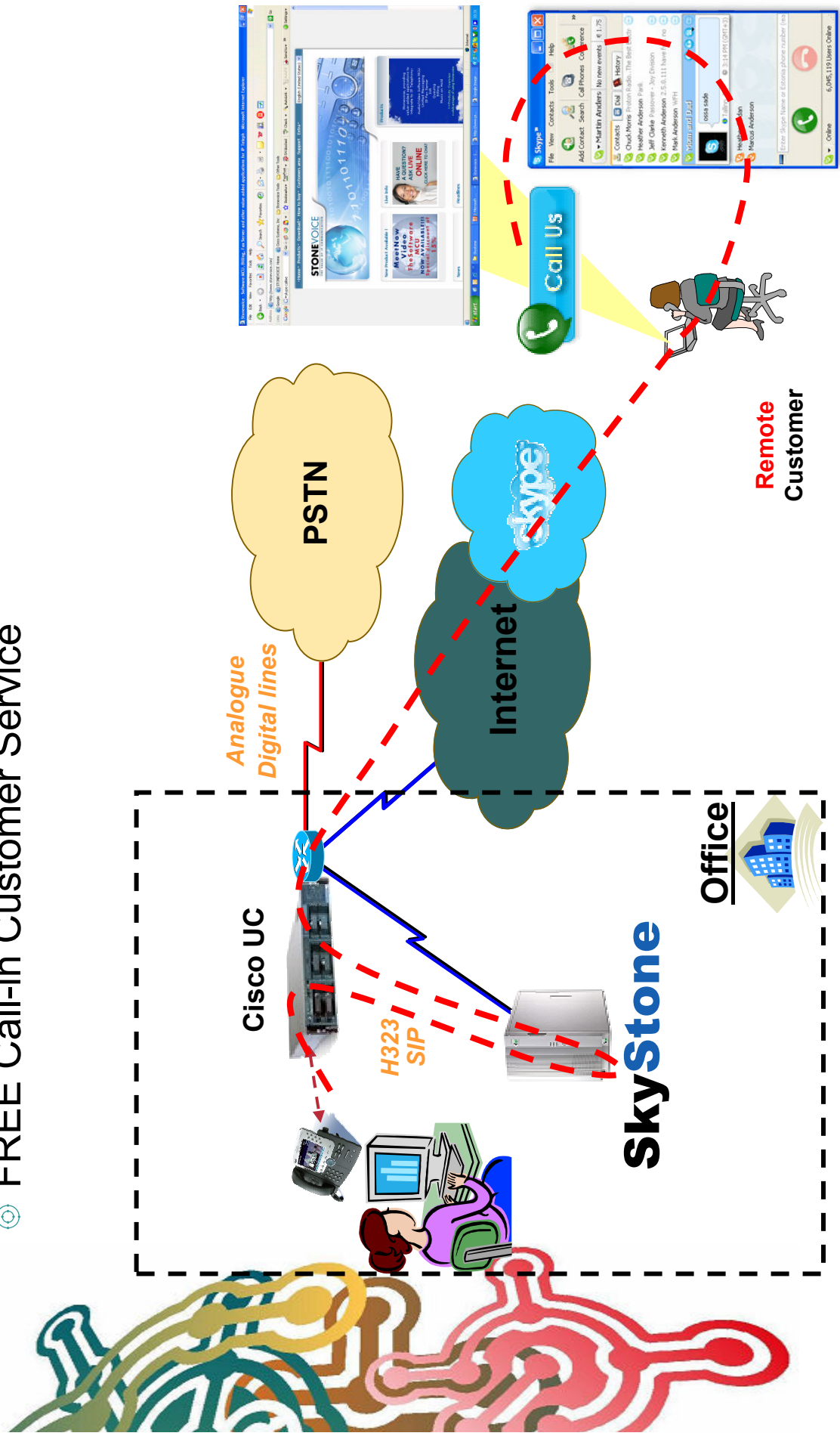
## © OUTBOUND

- ❖ You can place calls to Skype accounts from desk phones in the office
- ❖ You can place calls from desk phones in the office to ordinary numbers (national, international, mobile) through the SkypeOut service using Skype as a “Virtual Carrier”
- ❖ You will save money on international calls



# Skystone: Skype call me

© FREE Call-in Customer Service



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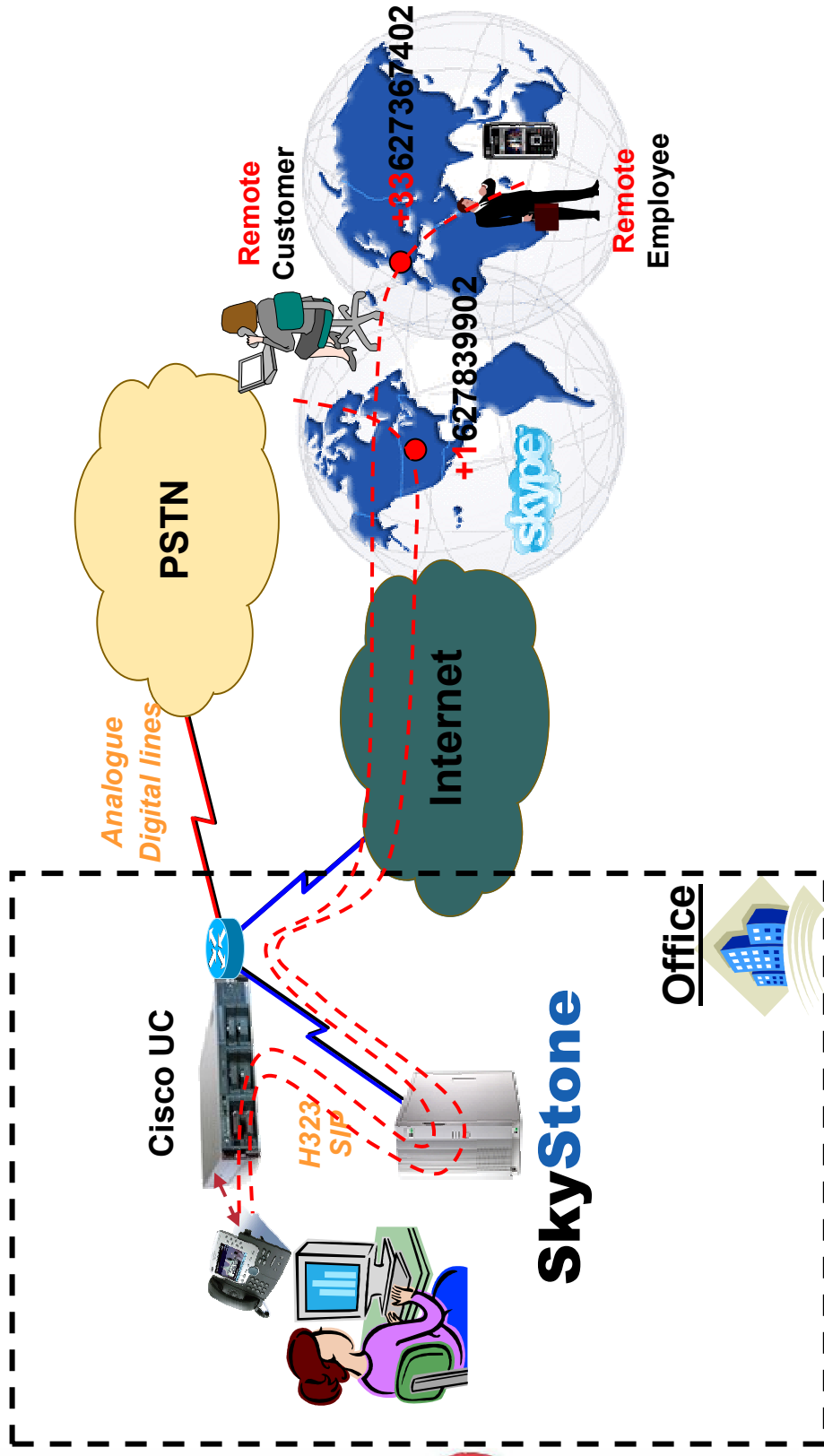
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## SkyStone: SkypeIn, geographical virtual presence

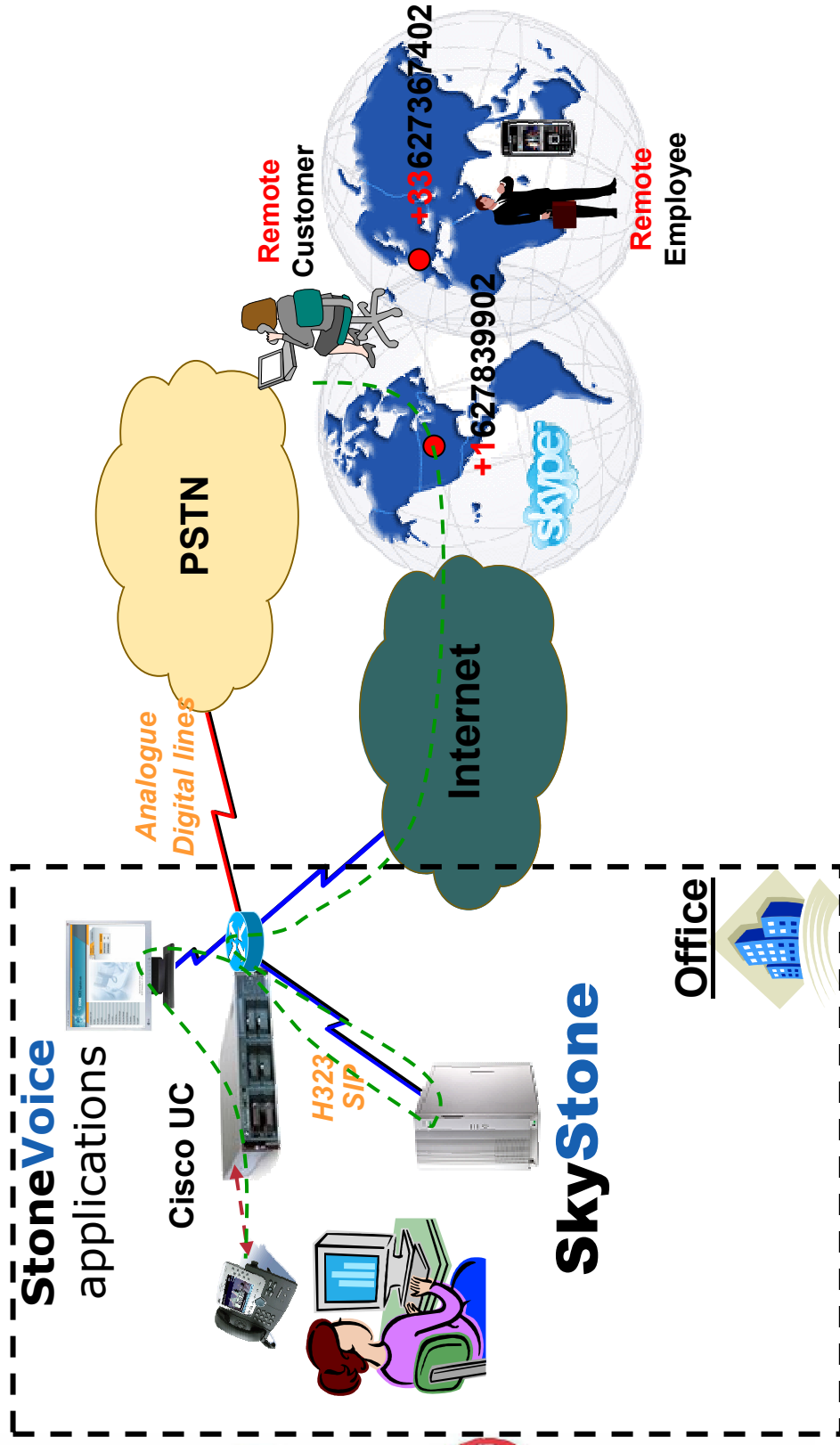
- © With **SkyStone** and the Skype In service Remote users and customers can dial local numbers to reach the office using Skype as a “**Virtual carrier**”





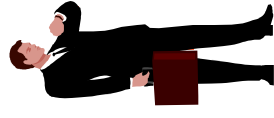
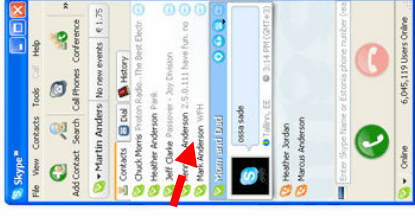
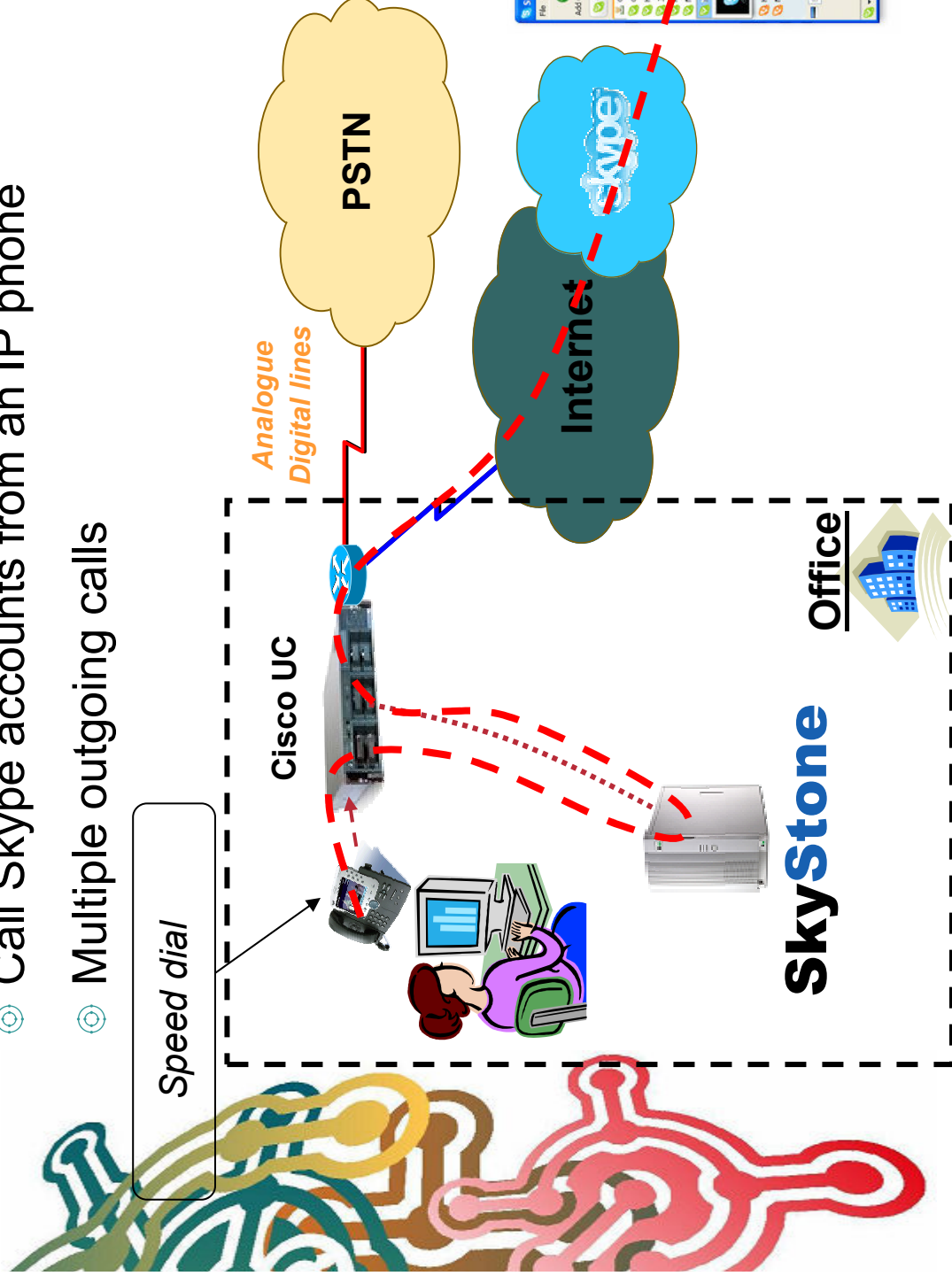
# SkyStone: SkypeIn, extra services

© Through SkyStone you can access office v-mail, IVR, conference and other applications from Skype



# IP phone to Skype calls

- Call Skype accounts from an IP phone
- Multiple outgoing calls



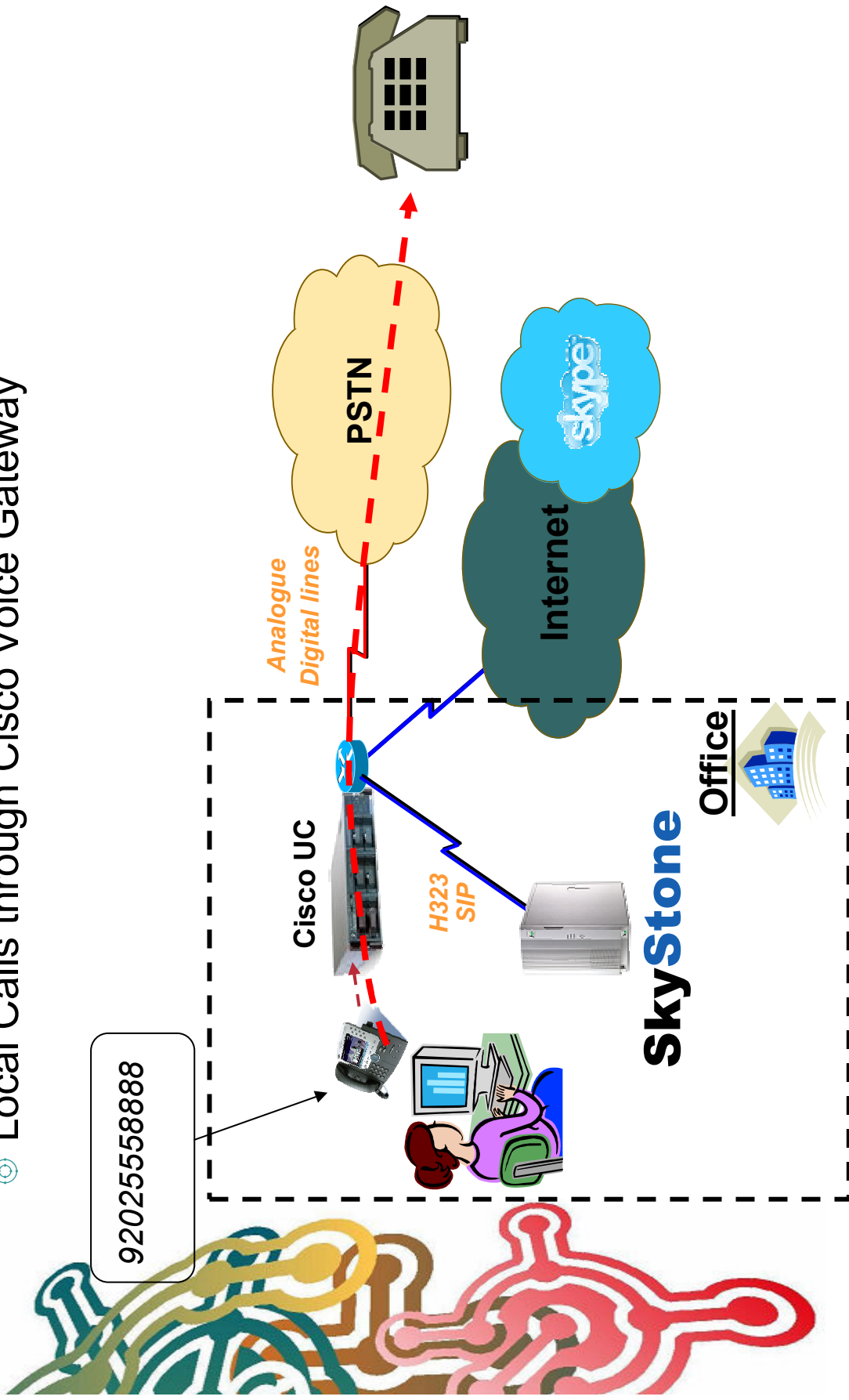
Remote Employee

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# SkyStone and SkypeOut: The main concept

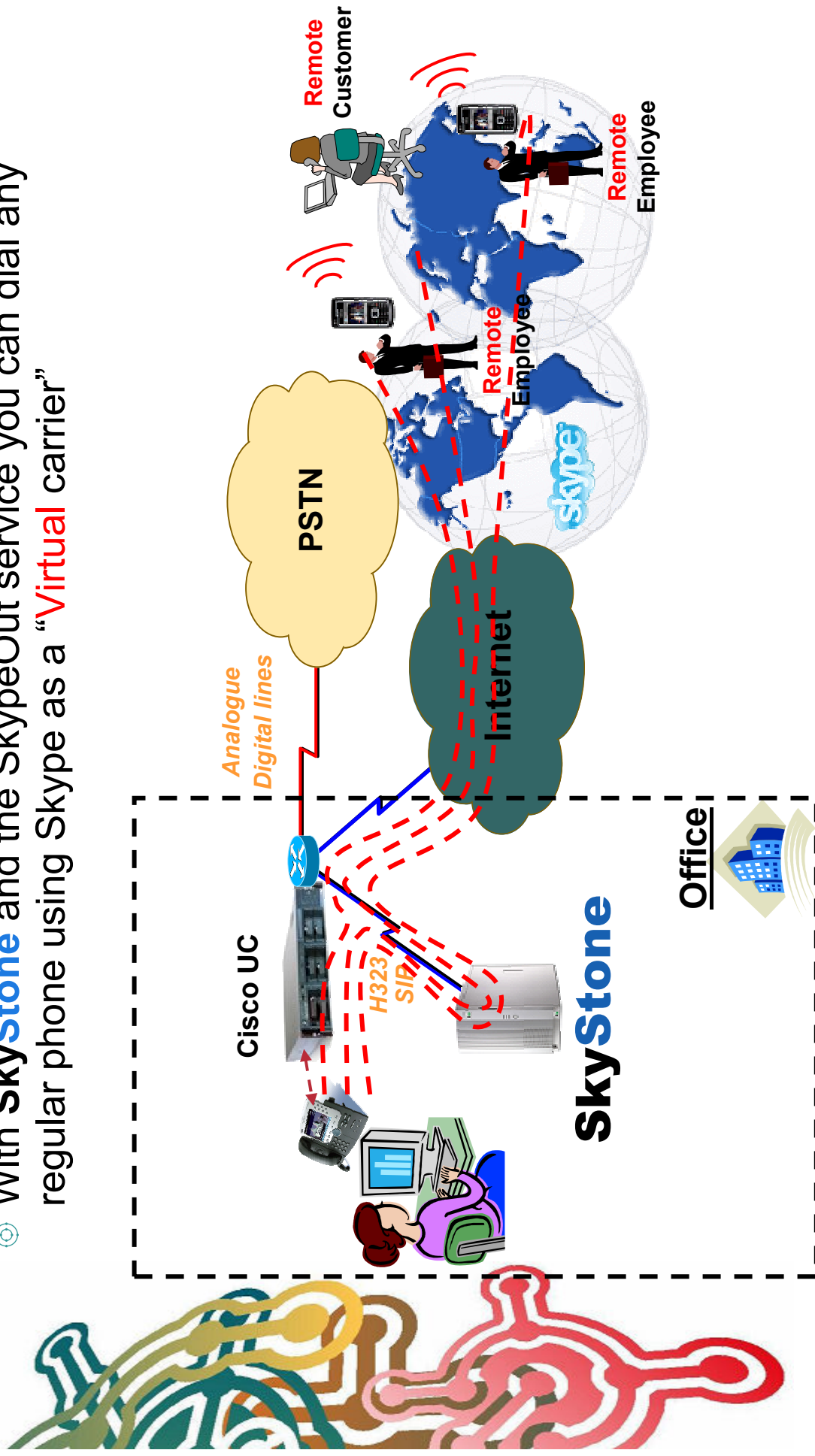
© Local Calls through Cisco Voice Gateway





## SkyStone: and SkypeOut: Decrease the telephony bill

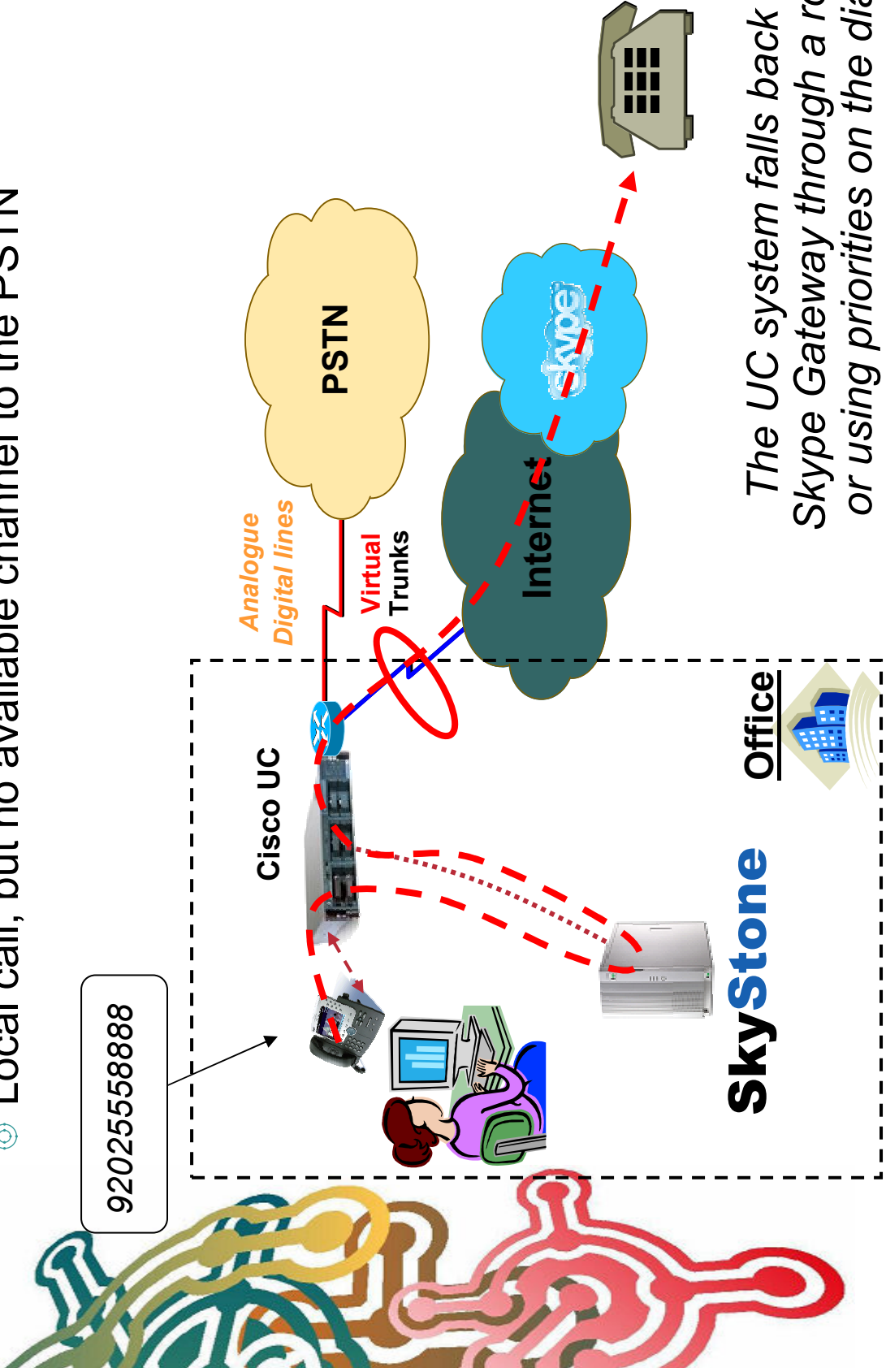
- © With **SkyStone** and the SkypeOut service you can dial any regular phone using Skype as a “**Virtual carrier**”



# SkyStone and SkypeOut: Virtual Trunking

© Local call, but no available channel to the PSTN

92025558888

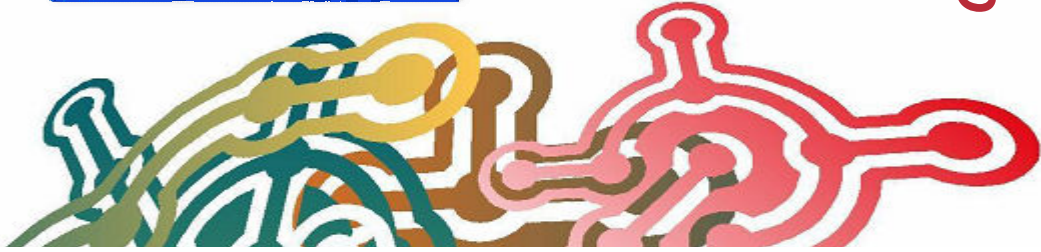
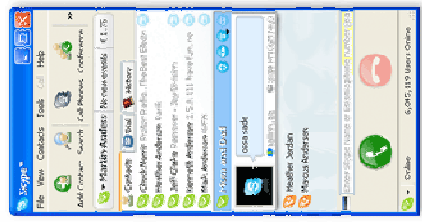


The UC system falls back to the Skype Gateway through a route list or using priorities on the dial-peer

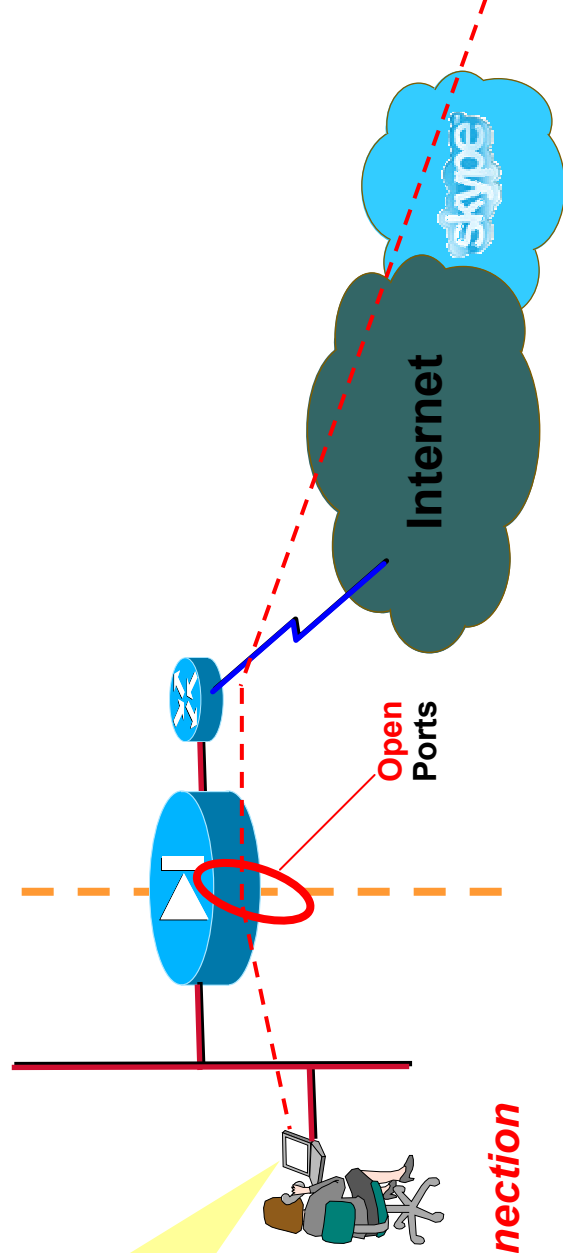


# Security: before SkyStone

Skype usage  
Security study



INSIDE OUTSIDE



----- Skype connection

**Corporate policy: either block Skype on the internal network or leave dedicated ports on the firewall.**

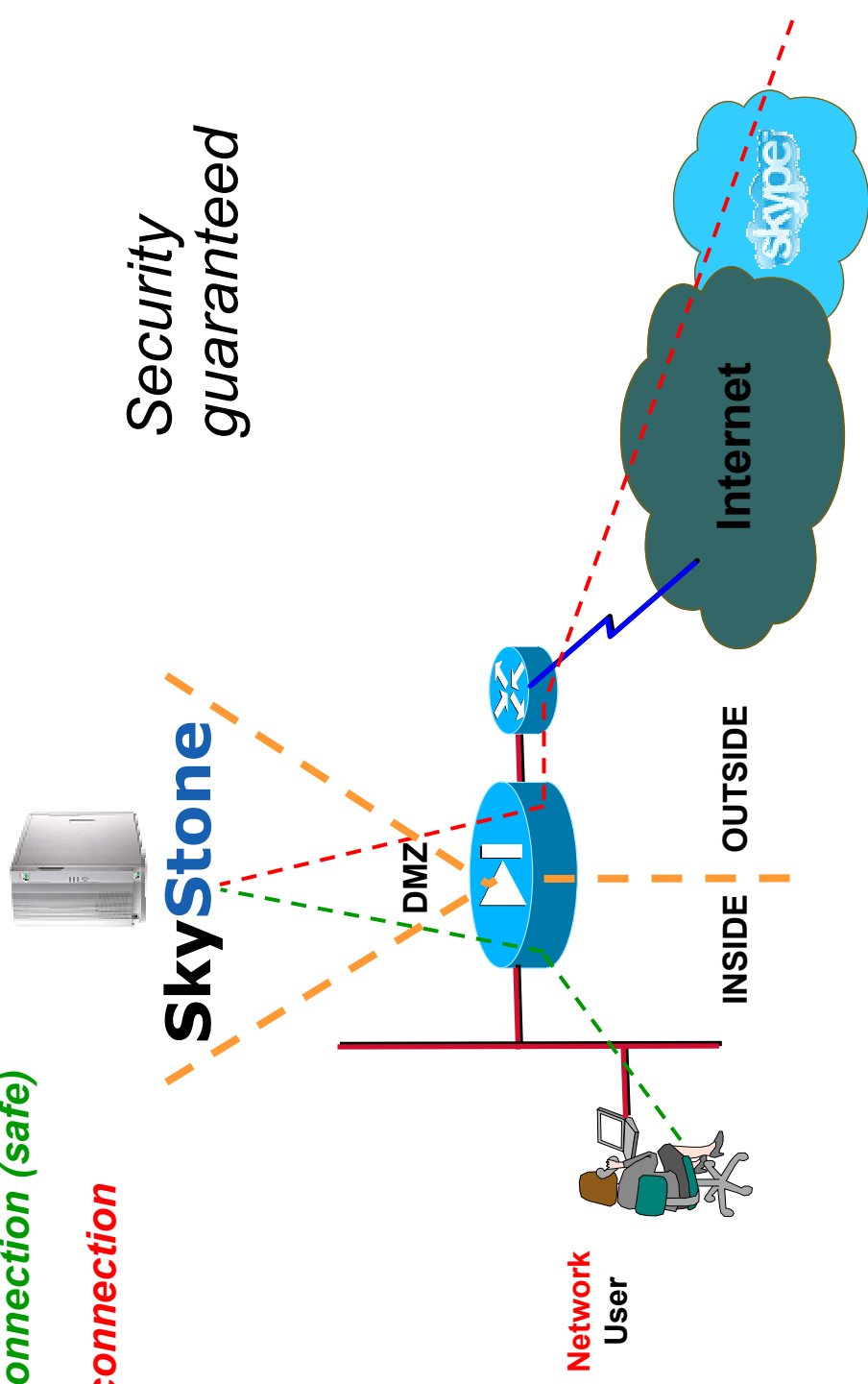
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# Security: now, with SkyStone

----- Voice connection (safe)

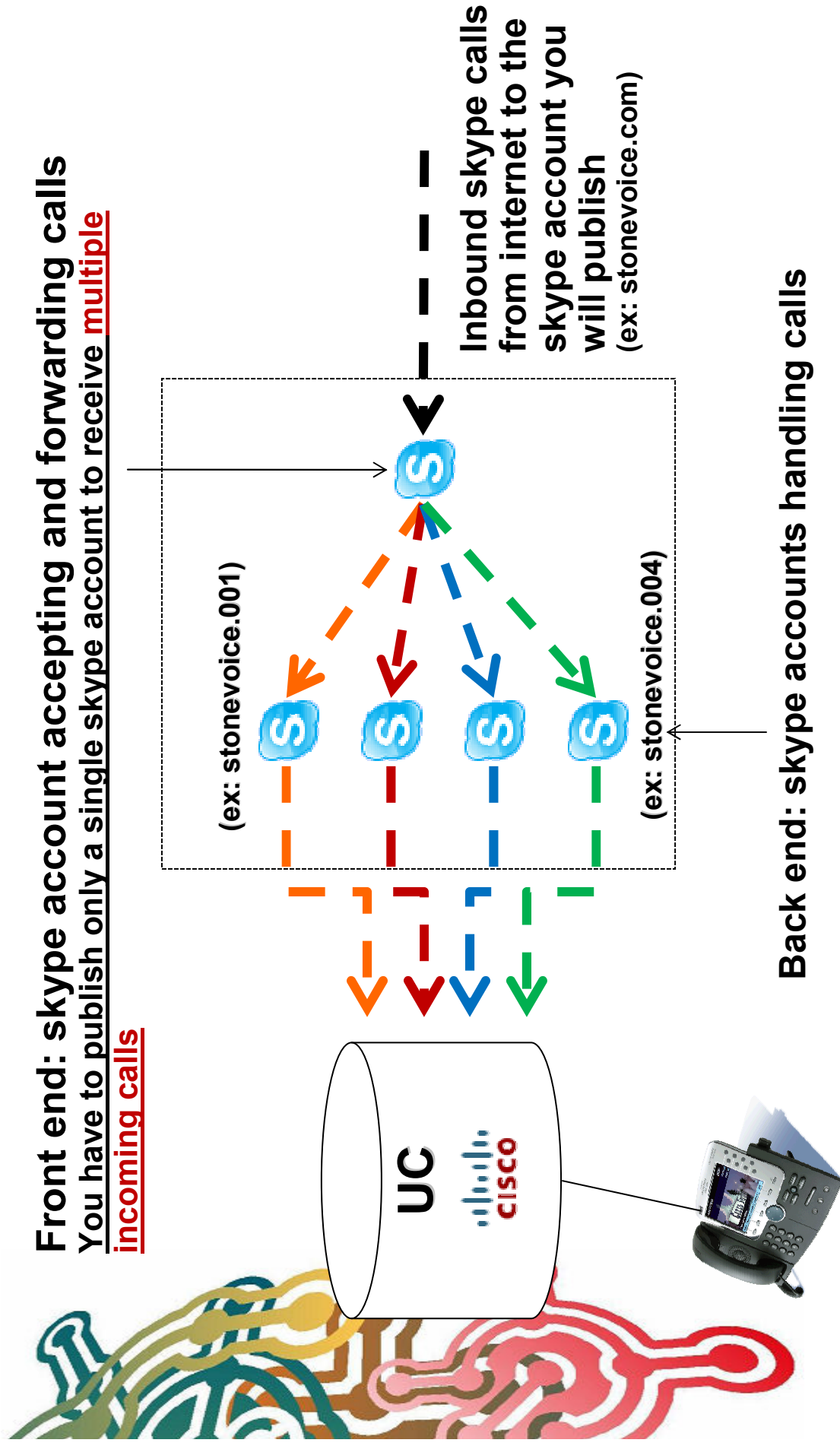
----- Skype connection



**Corporate policy: Skype corporate use, converged and security enabled and supervised.**

# SkyStone: Handling multiple channels

**Front end: skype account accepting and forwarding calls**  
You have to publish only a single skype account to receive multiple incoming calls



## **SkyStone: Advantages of the Skype Gateway**

- ③ **Convergence:** Today the business world can finally interconnect with the Skype world
- ③ **Strategic services:** The business world can benefit of the Skype services for its own use or to reach the consumer world's demand.
- ③ **Control:** The business world can limit the Skype usage for personal reasons
- ③ **Seamless Integration:** plug&play integration with CUCM





# SkyStone prerequisites

- ⦿ Operating systems
  - ⌘ Windows Server 2003
- ⦿ Configurations
  - ⌘ 1-2 channels    1.5 GHz    1GB
  - ⌘ 4-8 channels    3 GHz    1GB
  - ⌘ 8+ channels    Dual core    2 GB
  - ⌘ Sizing goes mostly with CPU power
- ⦿ Skype 3.5.0.239, but works with older
- ⦿ CUCM 4.x, 5.x, 6.x
  - ⌘ H.323 gateway configuration is the only requirement



# SkyStone parameters

- ⦿ Demo can run on virtual machines
- ⦿ G.711 u-law and a-law supported on Cisco side
  - ⚡ Must be taken into account for distributed scenarios
- ⦿ Installs VNC with default password out-of-the-box
- ⦿ All configuration web based



## Initial configuration tasks – SkyStone

- ⦿ Create Skype accounts for each voice channel
  - ⌘ Can be created during SkyStone setup
- ⦿ Change parameters as needed
  - ⌘ 82 default route pattern for PSTN calls
  - ⌘ 8300 special test service number
  - ⌘ 201 is default IP telephony number for all incoming calls from Skype
  - ⌘ 21720 default H.323 port



## Advanced configuration tasks – SkyStone

- ⦿ Create numbering plan
  - ⌘ Rules for SkypeOut calling
  - ⌘ Map incoming Skype calls to relevant IP telephony numbers
    - ⦿ Each Skype account can receive calls on appropriate telephone number
    - ⦿ Multiple accounts can ring on the same phone
  - ⌘ Map specific phone numbers to Skype accounts
    - ⦿ Each Skype account can have its own internal IP telephony number
- ⦿ Skype accounts can be imported in bulk (from a text file)



## Configuration tasks – Cisco

- ⦿ Configure H.323 gateway
  - ⌘ Must communicate on port 21720
  - ⌘ Media termination point is required
  - ⌘ If Skype to IP calls are allowed, make sure appropriate calling search space configuration is applied to gateway incoming calls
- ⦿ Configure route patterns
  - ⌘ For SkypeOut – the default is 82!
  - ⌘ **SkyStone** strips 82
  - ⌘ For IP to Skype direct calls





## Administration tasks

- ⦿ Calls are recorded in CUCM CDR's
- ⦿ **SkyStone** shows real time status of all calls (channels)
- ⦿ CurrentCall data is stored into log files, and can be “exported” as SysLog
- ⦿ Full configuration Backup and restore are provided. Backup is stored in a simple file, no special handling needed
- ⦿ VNC access to **SkyStone** server integrated with web administration GUI



## Handling any-to-any call mapping

- ◎ **SkyStone** licensing is per number of Skype accounts (**SkyStone** channels)
- ◎ To handle any to any mapping, special component is provided – **SkyStone** ACD (Automatic Call Dispatcher)
  - ⌘ Call to one Skype account can be distributed to first available IP phone
  - ⌘ Direct inward dial – one Skype account can be matched to one IP phone number
  - ⌘ Allows for redundant configurations with load sharing



## Keep it simple: use it, learn it, show it!

- ⦿ Demo license is valid for...
  - ⦿ 2 channels
  - ⦿ 60 second call duration
- ⦿ Free download from [www.stonevoice.com](http://www.stonevoice.com)
- ⦿ All documentation, quick setup and setup guides available on web



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THE VALUE OF IP COMMUNICATION



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# Why choosing **STONEVOICE** and **SkyStone**

## © Technical

- ❖ Reliable solution
- ❖ Completely Web Based
- ❖ Converges in a unique management portal
- ❖ Free fully-featured 15-day trial download on the web
- ❖ Plug&play, easily integrated with the existing network

## © Financial

- ❖ Cost effective solution
- ❖ Per port or single license products
- ❖ Increase employee productivity - optimise company resources

## © Strategic

- ❖ Future developments easily integrated into existing environment
- ❖ Multilanguage
- ❖ Dynamic-flexible company



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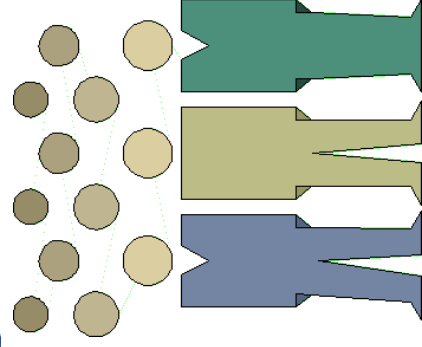
**V E R S O**

**STONEVOICE**

IP Software Skype Gateway



**Questions?**



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