

# Voipswitch's PBX

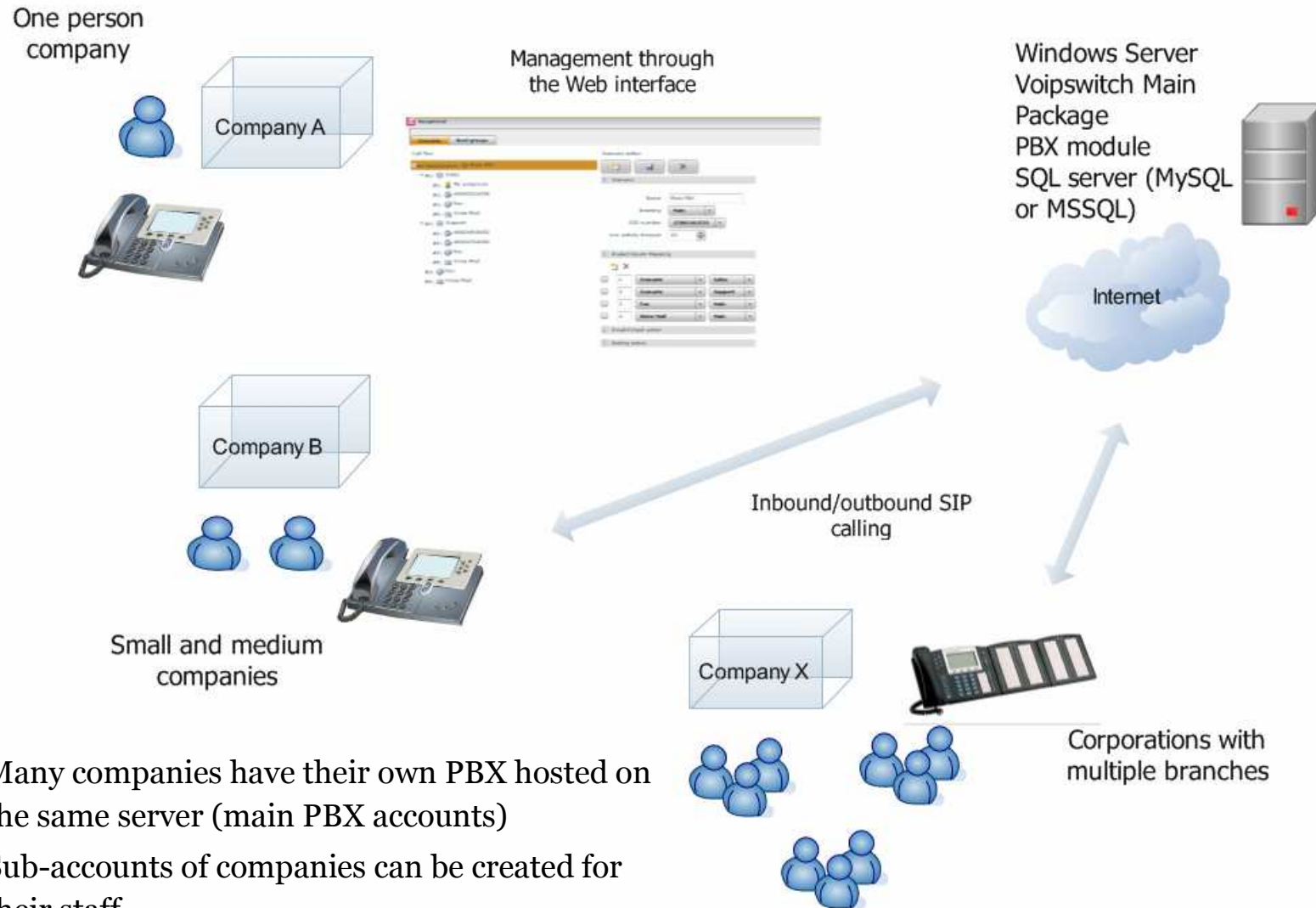


- Hosted model, running on provider's server,
- features rich PBX plus Class 5 broadband phone services,
- web, cross-platform management (flash),
- compatible with SIP equipment, IP phones, FXO/FXS adapters



*„Always be available at your extension”*

# How does it work?



- Many companies have their own PBX hosted on the same server (main PBX accounts)
- Sub-accounts of companies can be created for their staff

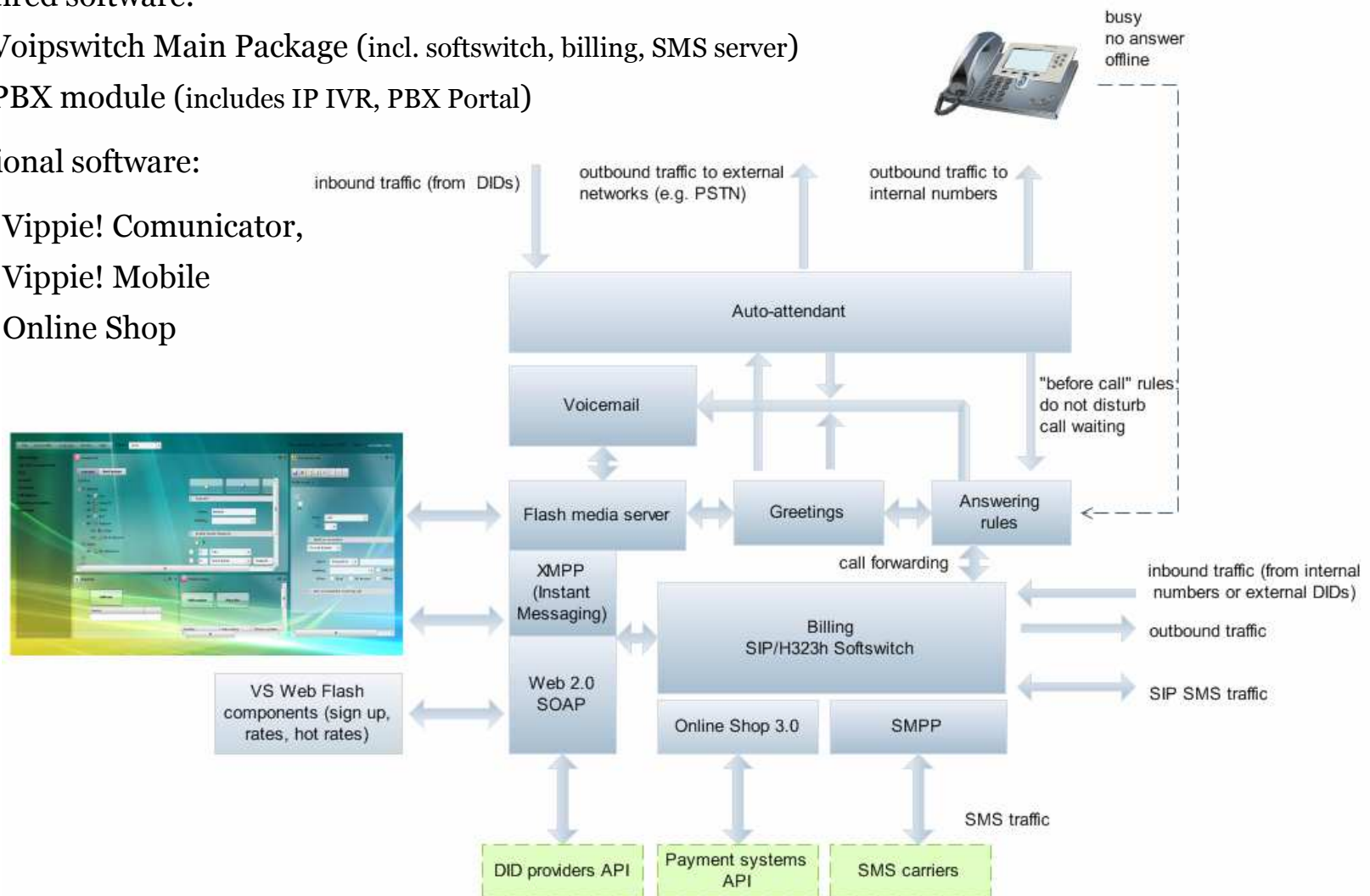
# Diagram - required software

Required software:

- ❑ Voipswitch Main Package (incl. softswitch, billing, SMS server)
- ❑ PBX module (includes IP IVR, PBX Portal)

Optional software:

- ❑ Vippie! Communicator,
- ❑ Vippie! Mobile
- ❑ Online Shop



# How an ITSP can make money?

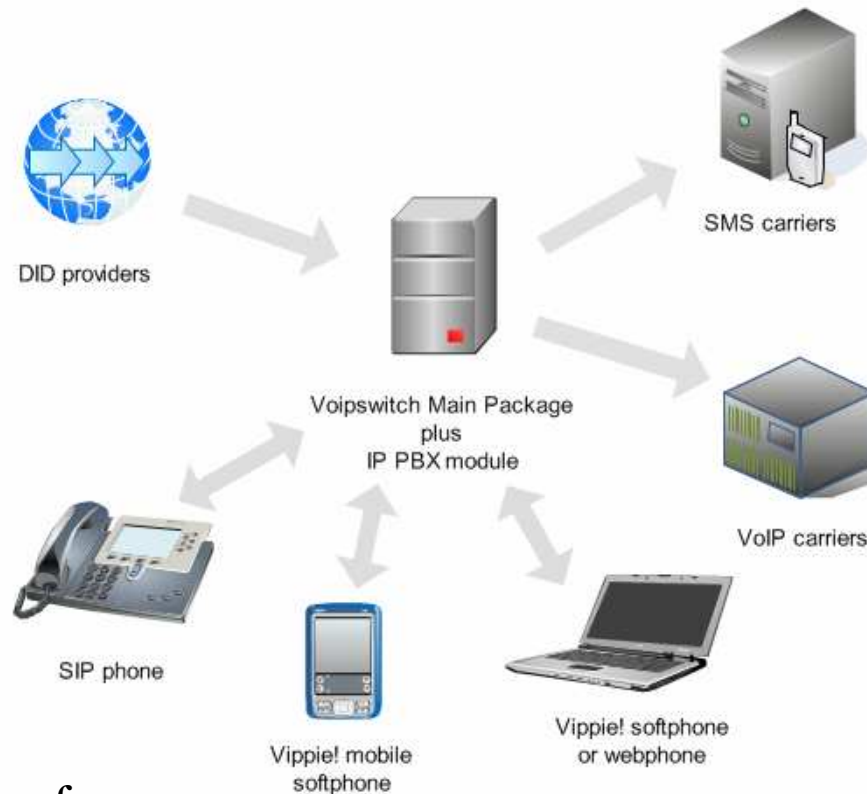
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## Revenue sources:

- ✓ Voice termination
- ✓ SMS termination
- ✓ DIDs origination
- ✓ Add-on services

## Costs:

- ✓ Internet connection
- ✓ monthly server rental
- ✓ one time software licence fee



# Website integration

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- custom-made web design,
- online shop,
- automatic sign up process,
- support for credit cards, paypal, moneybookers\*
- email with settings sent to customer



\*system supports several online payment systems like authorize.net, linkpoint, google checkout and others, for complete list visit our website

# Website integration – flash components

- predefined Flash components, developed using Flex: Sign Up, Rates, Hot Rates, Log in
- easy integration with html (both static and dynamically created pages). The components are added to the html page as objects, same method as for flash movies

Company

Contact person

Phone

Address

City

Zip code

Country

Tax no. (optional)

Tariff

Description

Prefix

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Prefix	Description	Voice rate
1	U.S.A.	0.0165
1204	CANADA-WITH NPAS	0.0055
1226	CANADA-WITH NPAS	0.0055
1242	BAHAMAS	0.0286
1242357	BAHAMAS-Bahamas Mobile	0.0287
1242359	BAHAMAS-Bahamas Mobile	0.0287
1242375	BAHAMAS-Bahamas Mobile	0.0287
1242376	BAHAMAS-Bahamas Mobile	0.0287
1242395	BAHAMAS-Bahamas Mobile	0.0287
1242422	BAHAMAS-Bahamas Mobile	0.0287
1242423	BAHAMAS-Bahamas Mobile	0.0287
1242424	BAHAMAS-Bahamas Mobile	0.0287
1242425	BAHAMAS-Bahamas Mobile	0.0287
1242426	BAHAMAS-Bahamas Mobile	0.0287
1242427	BAHAMAS-Bahamas Mobile	0.0287
1242428	BAHAMAS-Bahamas Mobile	0.0287
1242429	BAHAMAS-Bahamas Mobile	0.0287
1242431	BAHAMAS-Bahamas Mobile	0.0287
1242432	BAHAMAS-Bahamas Mobile	0.0287
1242433	BAHAMAS-Bahamas Mobile	0.0287

# PBX features - communication

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- Various means of communication, full support for VoIP tunnel\*
- directly from the PBX Portal (flash) – webphone VoIP, SMS, IM
- from Vippie! Desktop communicator – VoIP, SMS, IM
- from Vippie! Mobile – versions for Windows mobile and for Symbian- VoIP and SMS



\*VoIP tunnel is Voipswitch's proprietary technology enabling clients to make and receive calls behind firewalls

# PBX features – incoming phone numbers

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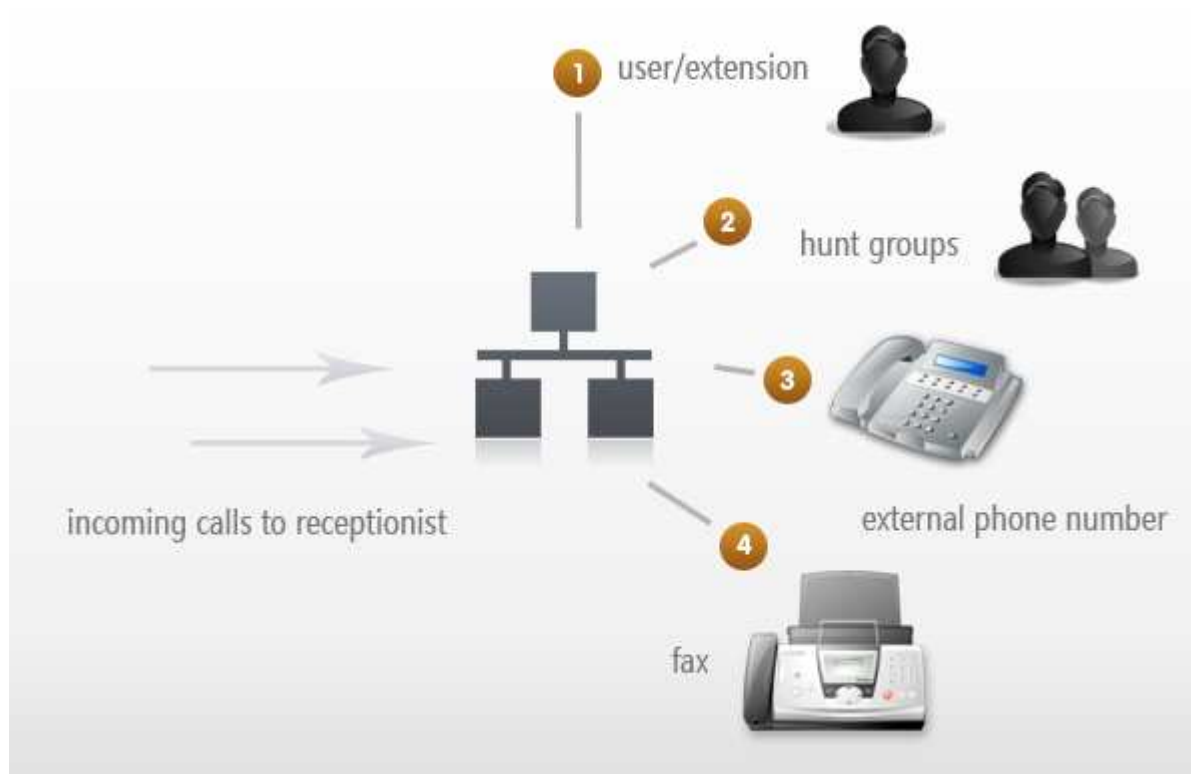
- Support for DID providers API,
- Compatible with SIP and H323 PSTN gateways,
- Online numbers can be ordered directly from the PBX Portal, or through API providers or from local database
- Phone numbers can be directed to user's SIP account or to specific Auto Attendant's scenario



# PBX features – receptionist

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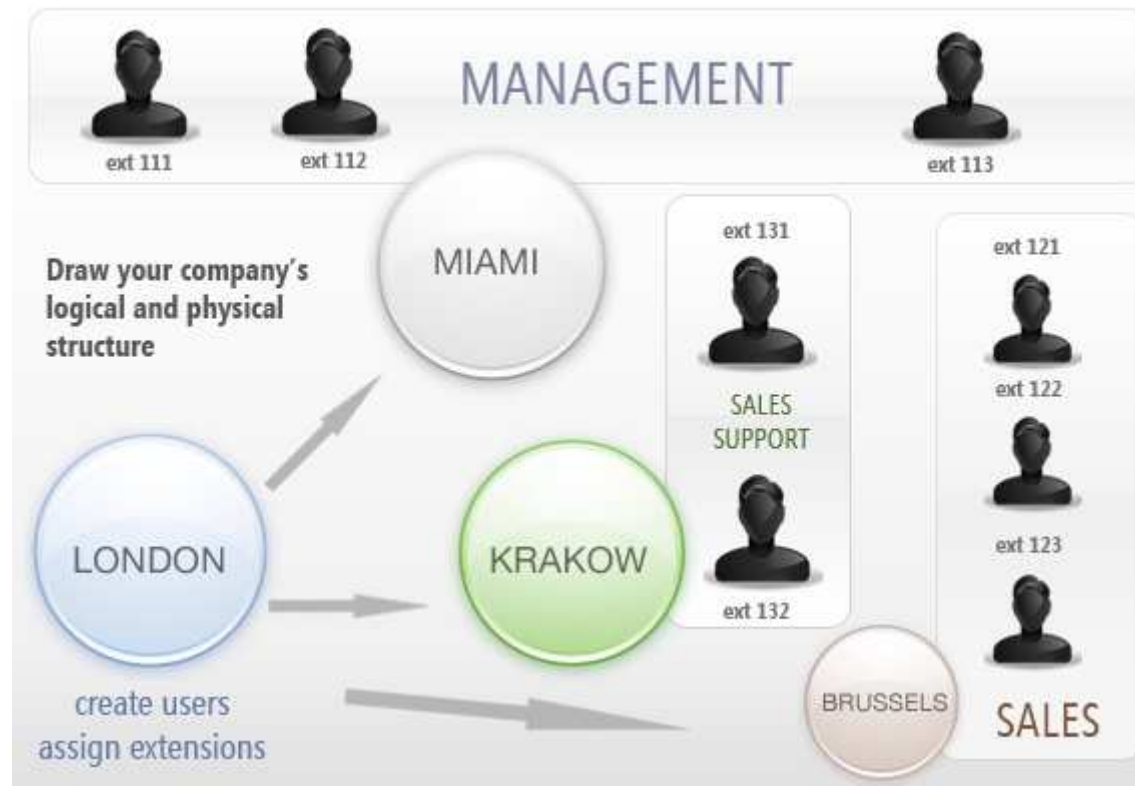
- Receptionist – Auto attendant with personalized greetings and personalized scenarios associated with particular incoming phone numbers,
- Caller's inputs can be mapped to a user/extension, a hunt group, voicemail or to another scenario,
- Various hunt group algorithms



# PBX features – organization structure

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- Adding new pbx users accounts, assigning them extensions (internal numbers)
- Grouping users into logical or geographical units
- Creating multiple organizational dimensions for grouping users
- Free and easy calling among extensions



# PBX features – notifications

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- Voicemail notification to email or to SMS, as MP3 file attachment via email, soon Voicemail as text via SMS
- Voicemail management directly from the PBX Portal, listening to voice messages from web (MP3 streaming)
- Various actions depending on the caller ID of the person who left a message
- Actions dependant on the time of the day
- Other events notifications



# Full list of features

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- **Receptionist** - different scenarios per each inbound number, advanced scenarios structure, support for building sequences of scenarios.
- **Mapping user's inputs** to scenarios, extensions, hunt groups, external phone numbers; unlimited number of inputs per scenario; associating voice messages (greetings) with scenarios.
- **Hunt groups** - groups of phone numbers designated to answer incoming calls; sequential and simultaneous methods of calling to hunt group's members
- **Voicemail** with welcome messages dependent on caller's phone number and inbound number; Voicemail hearing directly from PBXPortal (streaming)
- **Answering rules** - various behavior on incoming call depending on the call's source, caller ID and other parameters
- Web module for **uploading voice files recorded** in wav or mp3 format and further voice files management
- Adding users, extensions, branches
- **Music on call waiting**, music or announcement played instead of ring tone while connecting the call, depending on the caller ID; music on hold.
- **Contacts** - advanced address book accessible from the Web or Vippie softphone; direct dialing, direct conference, direct SMS to contact's phone numbers.
- **Webphone** - flash component (no additional installation required)
- **Instant messenger** - available from the PBX Portal or from Vippie softphone; chat rooms, presence, file transfer
- **Voicemail notifications** - depending on caller ID, through SMS or through email, voicemail message to email as mp3 file
- **Reports, statistics, invoices**, payments, calls history, missed calls, speed dial.
- Integration with **online payment** systems (paypal, authorize net and several others).
- **SMS sender, bulk SMS** sending to groups from Contacts
- Web **callback**, Connect Two

# Customizable themes, flash skinning

- The PBX Portal supports Flash skinning enabling provider to easily create unique, customized skins for end users,
- End users can change skins by selecting one from the list of available predefined themes

The screenshot displays a comprehensive PBX portal interface with several key components:

- Statistics Module:** A bar chart showing performance metrics for 'Last 3 days'. A tooltip for the date '2009-01-13' provides the following data:

Metric	Value
calls	2032
ADP	00:38
Total Revenue	22.3329
Total Duration	1824:47
Average Duration	0:49
- Contacts Module:** A table listing contact information for three individuals:

Firstname	Lastname	Email address
Jaroslaw	Marsik	jarek@voipswitch.com
Michal	Kozlowski	michal@voipswitch.com
Krzysztof	Oglaza	krzysiek@voipswitch.com
- Receptionist Module:** A configuration window for a 'Receptionist' scenario, showing a call flow for '#17862161533: Main PBX'. The flow includes:
  - #1: Sales
    - #1: My extension
    - #2: 48600316058
    - #3: Fax
    - #5: Voice Mail
  - #2: Support
    - #1: 48604900452
    - #2: 48324760382
    - #3: Fax
    - #5: Voice Mail
  - #3: Fax
  - #4: Voice Mail
- Scenario Editor:** A configuration window for the 'Main PBX' scenario, showing settings for Name, Greeting (Main), DID number (17862161533), non activity timeout (10), and a 'Dialed Inputs Mapping' table:

Input	Scenario	Action
1	Scenario	Sales
2	Scenario	Support
3	Fax	Main
4	Voice Mail	Main

# PBX user's perspective – Steps 1 and 2

Steps to be taken in order to configure newly created pbx account (after logging in):

Step 1. Order a virtual phone number, click on „Virtual numbers” menu and choose a country/region then select a city and enter quantity (you can add more than one number)

Order			Return		
Country ▲	Setup fee	Monthly fee	City	Area code	Quantity
ARGENTINA	12.0000	14.0000	ABERDEEN	360	1
CANADA	10.0000	10.0000	AFTON	307	0
CalltoNET local	0.9900	0.9900	AGOURA	818	0
FRANCE	10.0000	9.0000	AGUILAR	719	0
IRELAND	10.0000	10.0000	AKRON	970	0
Poland	0.0000	0.0000	ALAMOGORDO	575	0
UNITED STATES	10.0000	10.0000	ALAMOSA	719	0
USA - PBX DID num	1.0000	1.0000	ALBANY	541	0
			ALBUQUERQUE	505	0
			ALHAMBRA	626	0
			ALTIQUIPPA	724	0
			ALLEGHANY	530	0
			ALLENS PARK LYONS	720	0
			ALLENTOWN (LEHIGH)	484	0
			ALLITSON	970	0

Step 2. Direct the number to either SIP account (e.g. it will ring on your SIP phone) or to Receptionist.

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Country	Area name	Phone number	Dial as	Route type
USA - PBX DID number	Miami	17862161533	pbx	Receptionist
				Direct
				Receptionist

# PBX user's perspective – Steps 3 and 4

Step 3. Record a greeting message using any software recorder. Save the file in wav format and upload through PBX Portal to the server. You can also manage recorded files there, rename them and also listen.

**Add new**

Name			
Main			
Sales			
Support			
Voicemail			

Step 4. Create new scenario, associate with virtual (incoming) phone number and assign a greeting – it will be what a caller will hear when connects to your PBX.

It can be for example „Welcome to Company X, press one to connect with Sales, press two for Support, three for fax or wait few seconds to leave a message.

Scenario editor

Scenario

Name: Main PBX

Greeting: Main

DID number: 17862161533

non activity timeout: 10

Dialed Inputs Mapping

<input type="checkbox"/>	1	Scenario	Sales
<input type="checkbox"/>	2	Scenario	Support
<input type="checkbox"/>	3	Fax	Main
<input type="checkbox"/>	4	Voice Mail	Main

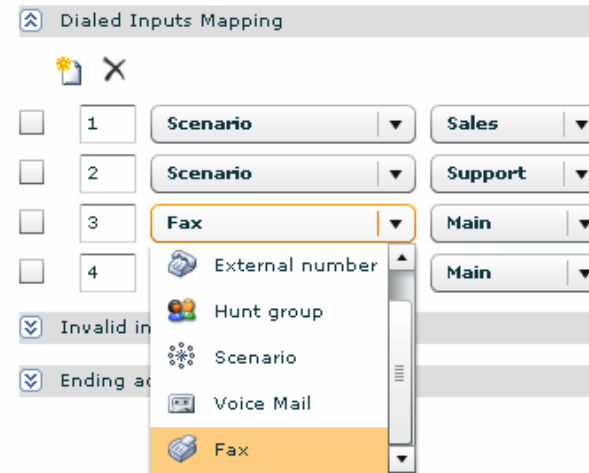
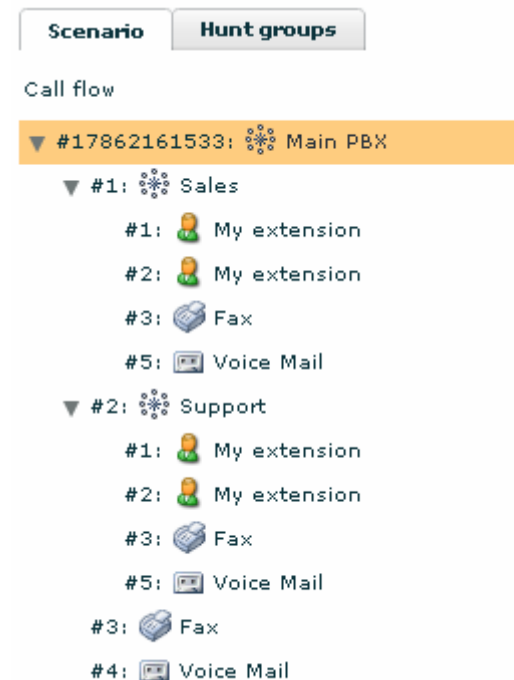
Invalid input action

Ending action

# PBX user's perspective – Steps 5 and 6

Step 5. Map caller's inputs to desired destinations, allowed destinations are:

- External phone number
- Extension
- Hunt group
- Other scenario
- Voicemail (with selected welcome greeting)
- Fax



Step 6. Repeating steps 4 and 5 you can create a tree representing call flow with even very advanced multi-level scenarios. Like on the picture on the left when caller presses 1, she/he will connect to Sales scenario which will play own greeting message with own menu. Pressing 1 will connect with the user's SIP account

# PBX user's perspective – Steps 7 and 8

## Step 7. Define Hunt groups,

add users or external phone numbers as the group members, set algorithm how the pbx will be trying to connect, define additional properties, timeouts, call waiting messages and others

The screenshot shows the 'Hunt groups' configuration page. At the top, there are tabs for 'Scenario' and 'Hunt groups'. Below the tabs is a table with two columns: 'Name' and 'Members'. The table contains one row with 'sales' in the 'Name' column and '0' in the 'Members' column. To the right of the table are several configuration sections: 'Hunt group' with a 'Name' field containing 'sales'; 'Members' with a list of members including 'musty' and 'pbxTesti'; 'Properties' with settings for 'ring timeout' (2 for each user, 6 for each group's destination), 'while dialing' (play greeting, Main), and 'Ending action' (disconnect, play message and disconnect, play message and dial default input, dial default input).

The screenshot shows the 'Rule editor' configuration page. At the top, there are tabs for 'Available rules' and 'Rule editor'. Below the tabs is a list of available rules, with '17862161533' selected. The 'Rule editor' section contains several configuration sections: 'General' with 'Rule priority' (1), 'From' (Any), and 'To' (17862161533); 'Before connection' with 'Do not disturb' selected, 'Call waiting' (Do not disturb), 'Greeting' (Main), and 'play in loop' (unchecked); 'On unsuccessful incoming call' with 'When' (Busy, No answer, Offline), 'Action' (Forward to), and 'Greeting' (Sales) with 'play in loop' (checked).

## Step 8. Configure Answering rules,

Define the call behavior when the connection is coming to your SIP account, you can set the rules before the call is sent to your SIP phone (i.e. **Do not Disturb** or **Call waiting**) and on unsuccessful attempt. You can **forward the call** to any other number or **voicemail**, also you can define as many rules as you want depending on the caller number or/and on the called number, for example have different call waiting messages for different callers

# PBX user's perspective – Steps 9 and 10

Step 9 Create branches and/or organizational units

The screenshot displays the PBX user management interface, divided into several sections:

- Branch filter:** A dropdown menu for selecting a branch.
- Users:** A list of existing users, including 'pbxTesting' and 'musty'.
- User editor:** A form for editing user details, including:
  - General:** First name (Christopher), Surname, and Account State (100).
  - Credentials:** Login (Chris), Password (masked), and Email (chris@voipswitch.com).
  - Extensions:** A list of extensions with checkboxes and gear icons, including 212 and 211.
  - Structure:** Branch (voiceserve) and Company structure (board) dropdowns.

On the right side, two panels show the organizational structure:

- Groups:** A tree view showing a hierarchy starting with 'board', which includes 'sales', 'support', and 'new group'.
- Dimensions:** A dropdown menu set to 'company structure'.
- Group editor:** A form for creating or editing a group, with 'name' set to 'sales' and 'parent' set to 'board'.

Below this, another set of controls shows:

- Dimensions:** A dropdown menu set to 'company branch'.
- Groups:** A tree view showing a hierarchy starting with 'voiceserve', which includes 'USA' (Miami, New York), 'United Kingdom' (London), and 'sad'.
- Group editor:** A form for creating or editing a group, with 'name' set to 'United Kingdom' and 'parent' set to 'voiceserve'.

Step 9 Create new users under your main PBX account, assign money limit for calls if you wish, add extensions to each user

# PBX user's perspective – other features

Voicemail from web  
MP3 streaming

You have 2 new messages, 3 unheard messages, 0 old messages

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Page size 20

Date/Time	From	Duration	Status		
2009-01-30 13:46:	148717224350	0:07	unheard		X
2009-01-31 16:39:	48774691560	0:07	unheard		X
2009-01-31 17:00:	48774569147	0:08	unheard		X
2009-02-02 10:34:	jarekvps	0:10	new		X
2009-02-03 24:13:	48600316058	0:34	new		X

Add new Edit Group

Firstname	Lastname	Email address	
Krzysztof	Oglaza	krzysiek@voipswitch.com	X
John	Kowalski		X
Lukas	Nowak		X
Michal	Kozlowski	michal@voipswitch.com	X
Greg	Hamburg	greg@voipswitch.com	X
Jaroslav	Marek	jarek@voipswitch.com	X

Primary Details Instant messengers Custom

Firstname Jaroslav Notes  
Lastname Marek  
Email address jarek@voipswitch.com  
Group None  
Default phone office

Name	Number	Can sms	
office	48391426003	<input type="checkbox"/>	X

New

Callback

Call Hang up

Source Number  
44200789578

Dest : 48391426003

Status :



Contacts – address book stored on server and shared with Vippie!.  
Direct conference and direct dial to contact's numbers

# PBX user's perspective – other features

Invoices and billing details in PDF on the web, also sent via email

(All) Page 1/1 of 1 records    Page size 10

No.	Date	Invoice	Summary billing	Detailed billing
4/1/2009	1/30/2009 11:29:19 AM			

Click to download

**Statistics**

Date range: Last 3 days

Chart type: Vertical axis

2009-01-12  
calls: 2032  
RPT: 40.58  
Total Revenue: 02.0322  
Total Duration: 1024642  
Average Duration: 0:49

Call	Success	Failed	Total
340	13928	7344	21272

**Calls history**

Select period: Last week

Select type: Calls

Called number	Call Start	Duration	Cost	Caller ID	IP number	Tariff	Tariff p

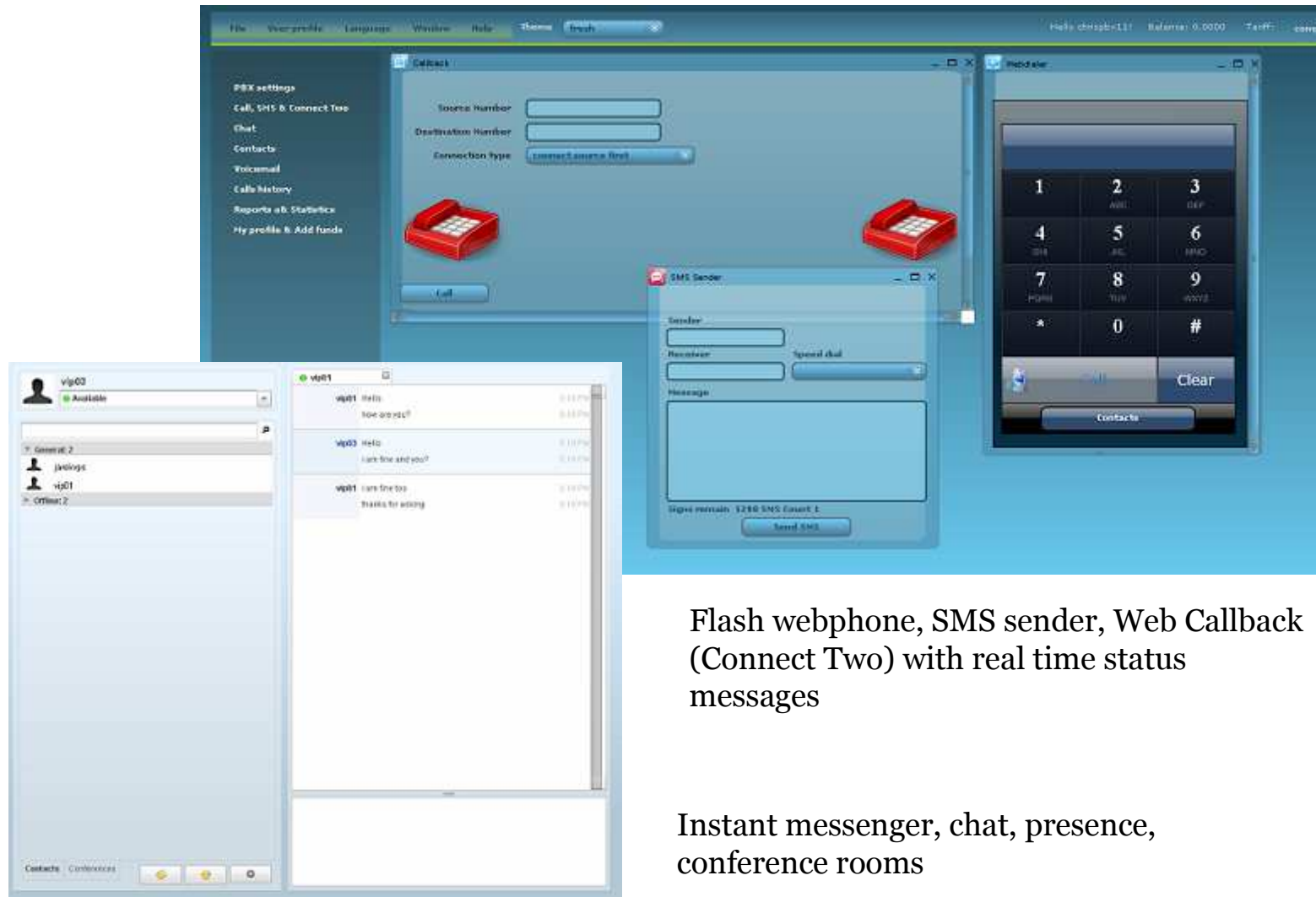
**Missed calls**

Refresh data

Call Start	Called number	Caller ID	Release reason
2009-01-30 05:21:26	internal_pbx_call	48717224350	Ring timeout occurred
2009-01-30 05:21:46	internal_pbx_call	48717224350	Ring timeout occurred
2009-01-30 05:24:41	48324760382	48717224350	
2009-02-13 11:27:28	internal_pbx_call	13059081654	Destination was offline
2009-02-18 13:08:53	internal_pbx_call	13059081654	Destination was offline
2009-02-18 13:08:53	internal_pbx_call	13059081654	Destination was offline

Reports, statistics, payments history, missed calls, made calls details (cdr) – export to csv

# PBX user's perspective – other features



Flash webphone, SMS sender, Web Callback (Connect Two) with real time status messages

Instant messenger, chat, presence, conference rooms