

ISSABEL (Install Call Center)

Contents

- Introduction & Features
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- Isabel Configuration
- IPPhone and microsip Configuration

Introduction & Features:

- Login with a hardset or soft set directly and take queue calls.
- Agent GUI featuring screen pops with agent information.
- Reporting real time and historical, aslo call recording.
- CRM integration with TigerCRM (and potentially many others).
- Agent Scripting
- Form population, useful for capturing caller information
- Phone interaction using GUI.
- It's open source and many more.
- get iso image from : <https://www.issabel.org/>

Pre-Requisites:

- Persistent FQDN (it can be internal using DNS server or public)
- Hostname : your issabel server host name
- System Requirements
 - 4 vCPU
 - 8GB RAM
 - 40 GB Storage(is increase your organization structure and logs bases)
- Operating System
 - CentOS 7 (also use another linux flavor)
- Firewall Settings

- Port 80 | 443 | 5060-5080 | 5700 our requirements)
- Database Server
 - MySQL
- Web Server
 - Apache2 or above
- SIP Trunk IP from telecom operator
- Minimum two NIC cards.
- Time Sync: timedatectl set-timezone Asia/Kathmandu.

Networking Architecture

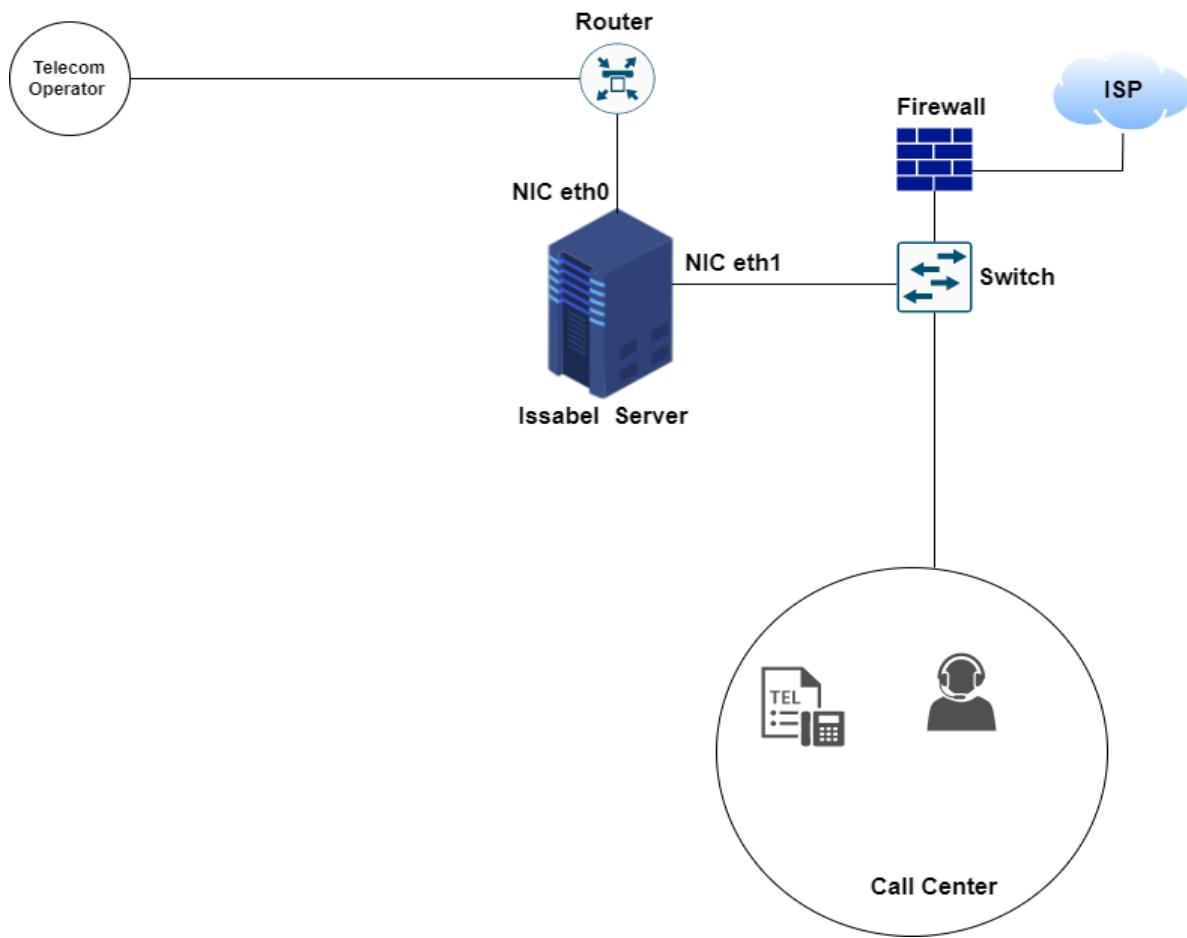


Fig: Networking Architecture

Issabel Configuration

Step I:

- Install issabel iso on the server.
- Go to the cd /etc/sysconfig/network-scripts directory .

```
[root@... ~]# cd /etc/sysconfig/network-scripts
[root@... network-scripts]# ls
bck.ifcfg-eth0.bck  ifdown-isdn      ifup-bnep    ifup-routes
bck.ifcfg-eth1.bck  ifdown-post     ifup-eth     ifup-sit
ifcfg-eth0          ifdown-ppp       ifup-hdlc   ifup-Team
ifcfg-eth1          ifdown-routes   ifup-ippn   ifup-TeamPort
ifcfg-lo            ifdown-sit      ifup-ipv6   ifup-tunnel
ifdown              ifdown-Team     ifup-isdn   ifup-wireless
ifdown-bnep         ifdown-TeamPort ifup-plip   init.ipv6-global
ifdown-eth           ifdown-tunnel   ifup-plusb  network-functions
ifdown-ippn         ifup           ifup-post   network-functions-ipv6
ifdown-ipv6         ifup-aliases   ifup-ppp    route-eth1
[root@... network-scripts]#
```

- Open and add in **route-eth1** file. Add a network which is provided by the telecom operator.

eg. 192.100.20.0/24 via 192.168.10.20.1 dev eth1

```
bck.ifcfg-eth0.bck  ifdown-eth      ifdown-sit    ifup-eth    ifup-post   ifup-wireless
bck.ifcfg-eth1.bck  ifdown-ippn     ifdown-Team   ifup-hdlc   ifup-ppp    init.ipv6-global
ifcfg-eth0          ifdown-ipv6     ifdown-TeamPort ifup-ippn   ifup-routes  network-functions
ifcfg-eth1          ifdown-isdn     ifdown-tunnel  ifup-ipv6   ifup-sit    network-functions-ipv6
ifcfg-lo            ifdown-post    ifup           ifup-isdn   ifup-Team   route-eth1
ifdown              ifdown-ppp      ifup-aliases   ifup-plip   ifup-TeamPort
ifdown-bnep         ifdown-routes  ifup-bnep    ifup-plusb  ifup-tunnel
```

```
[root@... network-scripts]# nano route-eth1
```

```
GNU nano 2.3.1                                     File: route-eth1
[REDACTED]/24    via [REDACTED]      dev      eth1
```

- Configure LAN ip in issabel server .

```
[root@him ~]# nano /etc/sysconfig/network-scripts/ifcfg-eth0
```

```
[root@him ~]# systemctl restart network
```

```
GNU nano 2.3.1                                         File: ifcfg-eth0

TYPE="Ethernet"
PROXY_METHOD="none"
BROWSER_ONLY="no"
BOOTPROTO="static"
IPADDR=192.168.1.10
NETMASK=255.255.255.0
GATEWAY=192.168.1.1
DEFROUTE="yes"
IPV4_FAILURE_FATAL="no"
IPV6INIT="yes"
IPV6_AUTOCONF="yes"
IPV6_DEFROUTE="yes"
IPV6_FAILURE_FATAL="no"
IPV6_ADDR_GEN_MODE="stable-privacy"
NAME="eth0"
UUID="c67d10bd-aa01-480a-9a11-06d6d6c69954"
DEVICE="eth0"
ONBOOT="yes"
DNS1=8.8.8.8
DNS2=1.1.1.1
```

Step II:

- Install Database

```
# sudo yum install mysql-server
# sudo systemctl start mysqld
# sudo systemctl enable mysqld
# sudo systemctl status mysqld
```

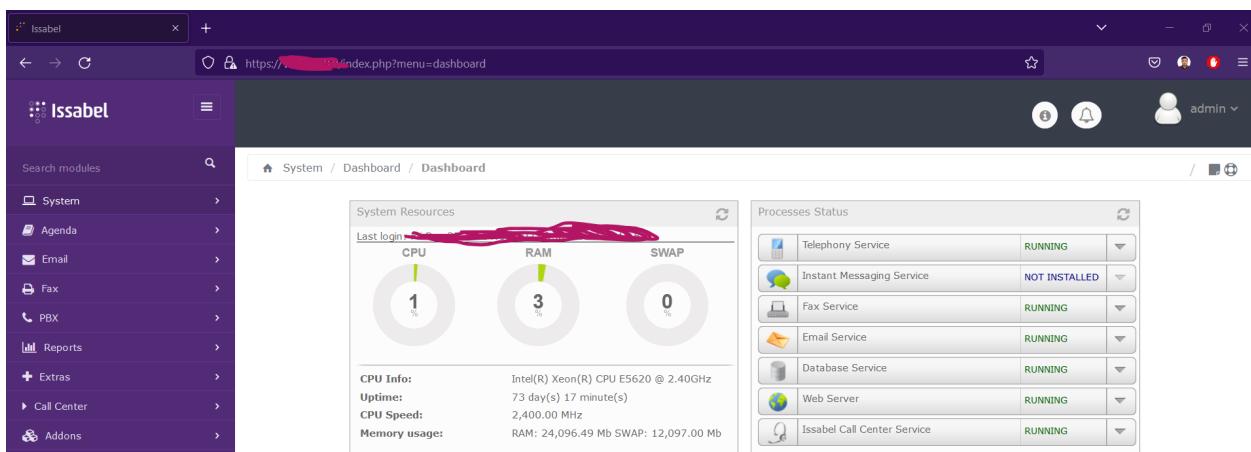
```
[root@him ~]# mysql -V
mysql Ver 15.1 Distrib 5.5.68-MariaDB, for Linux (x86_64) using readline 5.1
```

- Create database and database user for issabel server.

```
#mysql - u root -p → entering database server
# mysql > CREATE DATABASE "your_database_name";
# mysql> CREATE USER 'user'@'localhost' IDENTIFIED BY 'password';
# mysql>SHOW DATABASES;
```

Step III:

- Login issabel server (hostname or server ip).
[https: "your_server_hostname or ip"](https://your_server_hostname_or_ip)



News

2021.06.18 🐦 Support next Issabel release
 2020.07.17 🐦 New cloud portal. Monitoring, alerts, backups and more!!
 2020.03.20 🐦 New Click2Call service! Allow your web users to call your PBX directly from their browser.
 2020.01.27 🐦 Subscribe to Issabel Network to access new modules and functionality!
 2019.10.05 🐦 New Issabel UCR Micro appliance. 4 FXO, 2 FXS. Small form factor.

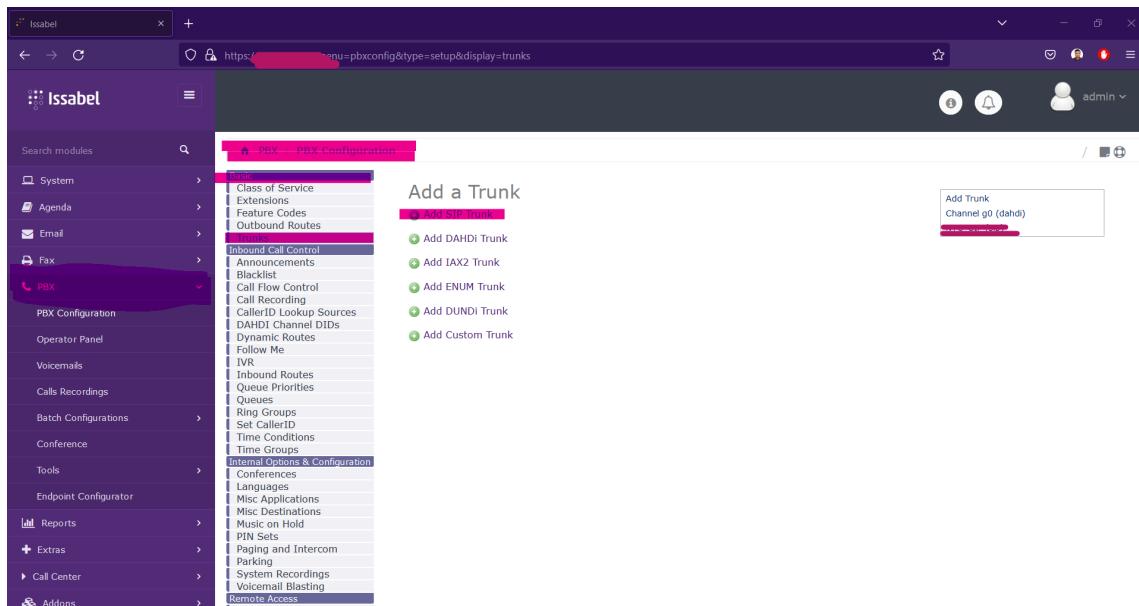
Communication Activity

Total calls: Calls (0) : (0 Internal calls) (0 External calls)
Total channels: 0 channels
Calls in queue: 0 Waiting
Extensions: SIP Extensions (19) : (5 Registered) (14 Not Registered)
 IAX Extensions (0) : (0 Registered) (0 Not Registered)
Trunks (SIP/IAX): Trunks (1) : (1 Registered) (0 Not Registered) (0 Unknown)
Network Traffic: Bytes (0.30kB/s) <= RX | TX => (0.26kB/s)

Step IV:

→ After Login Issabel server in the browser Configure the following

1. Click PBX → Basic → Trunks → add SIP Trunk



2. Add Trunk Name & Outbound CallerID

Eg. Trunk Name : "trunk_link"

Outbound CallerID : +977 *****

The screenshot shows the Issabel PBX Configuration interface. The left sidebar lists various modules: System, Agenda, Email, Fax, PBX Configuration (selected), Operator Panel, Voicemails, Calls Recordings, Batch Configurations, Conference, Tools, Endpoint Configurator, Reports, Extras, and Call Center. Under PBX Configuration, the 'Basic' section is expanded, showing Subsystems like Class of Service, Extensions, Feature Codes, Outbound Routes, Trunks (selected), Inbound Call Control, Announcements, Blacklist, Call Flow Control, Call Recording, CallerID Lookup Sources, DAHDI Channel DIDs, Dynamic Routes, Follow Me, IVR, Inbound Routes, Queue Priorities, Queues, Ring Groups, Set CallerID, Time Conditions, and Time Groups. The main content area is titled 'Edit SIP Trunk' and displays the configuration for a trunk named '████████'. It shows the trunk is in use by one route. The 'General Settings' section includes fields for 'Trunk Name' (████████), 'Outbound CallerID' (████████), 'CID Options' (Allow Any CID), 'Maximum Channels' (1), 'Asterisk Trunk Dial Options' (T, Override checked), 'Continue if Busy' (Check to always try next trunk checked), 'Disable Trunk' (Disable checked), and 'Dialed Number Manipulation Rules'. A dial pattern field '(prepend) + prefix | match pattern' is present, along with 'Add More Dial Pattern Fields' and 'Clear all Fields' buttons. Below this is a 'Dial Rules Wizards' dropdown set to '(pick one)' and an 'Outbound Dial Prefix' input field.

3. PBX → Basic → Trunks → add SIP Trunk → Outgoing Settings
- Below hidden information was provided by the operator.

Trunk Name: "trunk link"

PEER Details:

```
username=0771  
usereqphone=yes  
type=peer  
secret=[REDACTED]  
realm=[REDACTED]  
qualify=yes  
port=5060  
outboundproxyport=5060  
outboundproxy=[REDACTED]4  
host=[REDACTED]  
fromdomain=+[REDACTED]  
dtmfmode=inband  
disallow=all  
context=from-trunk  
allow=alaw,ulaw  
insecure=invite,port
```

Registration

Register String:

Outgoing Settings

Trunk Name^② : NTC_SIP

PEER Details^② :

```
[outboundproxyport=5060
outboundproxy=[REDACTED]
host=[REDACTED]
fromdomain=[REDACTED]
dtmfmode=inband
disallow=all
context=from-trunk
allow=alaw,ulaw
insecure=invite,port]
```

Incoming Settings

USER Context^② :

USER Details^② :

Registration

Register String^② :

```
+9771[REDACTED]@ims[REDACTED].com.np:5060 SIP/2.0 REGISTER sip:[REDACTED]@ims[REDACTED].com.np:5060;transport=udp;Expires=1800
```

After applying changes, go to the terminal and check .

```
[root@[REDACTED] ~]# asterisk -rvvv
Asterisk 11.25.3, Copyright (C) 1999 - 2013 Digium, Inc. and others.
Created by Mark Spencer <markster@digium.com>
Asterisk comes with ABSOLUTELY NO WARRANTY; type 'core show warranty' for details.
This is free software, with components licensed under the GNU General Public
License version 2 and other licenses; you are welcome to redistribute it under
certain conditions. Type 'core show license' for details.
=====
Connected to Asterisk 11.25.3 currently running on [REDACTED] (pid = 2520)
[REDACTED]*CLI> 

[REDACTED]*CLI> sip show registry
          Host          dnsmgr Username Refresh State      Reg.Time
[REDACTED]:5060           N  [REDACTED]    105 Registered   Sat, 24 Dec 2022 18:00:06
  1 SIP registrations.
  == Manager 'admin' logged off from 127.0.0.1
  == Manager 'admin' logged off from 127.0.0.1
[REDACTED]*CLI>
```

4. Extension section

PBX--> PBX Configuration --> Extension --> Click on Summit

PBX --> PBX Configuration --> Extensions

Devices - (Generic SIP Device)
click on Sumit button

inside Extension do following:

- i) Add Extension Number
- ii) Add extension user
- iii) Set secret
- iv)

The screenshot shows the Issabel PBX Configuration interface. The left sidebar has a tree view with categories like System, Agenda, Email, Fax, PBX, and PBX Configuration. Under PBX Configuration, 'Add an Extension' is selected. The main content area is titled 'Add an Extension' with the sub-instruction 'Please select your Device below then click Submit'. A dropdown menu labeled 'Device' is set to 'Generic SIP Device'. To the right, there is a list of available devices: Supervisor <1000>, Agent <1001>, Agent <1002>, Agent <1003>, Agent <1004>, Agent <1005>, Agent <1006>, Agent <1007>, Agent <1008>, Agent <1009>, Agent <1010>, Anil <2001>, Agent <2002>, agent <2003>, Agent <2004>, Agent <2005>, Agent <2006>, Agent <2007>, Agent <2008>. A 'Submit' button is at the bottom of the list.

Extension: 1000

- [Delete Extension 1000](#)
- [Add Gabcast Settings](#)
- [Add Follow Me Settings](#)
- [Edit Extension](#)

Display Name

Supervisor

CID Num Alias

SIP Alias

- Extension Options

Outbound CID	<input type="text"/>	
Asterisk Dial Options	<input type="text" value="tr"/>	<input type="checkbox"/> Override
Ring Time	Default	
Call Forward Ring Time	Default	
Outbound Concurrency Limit	No Limit	
Call Waiting	Enable	
Internal Auto Answer	Disable	
Call Screening	Disable	
Pinless Dialing	Disable	
Emergency CID	<input type="text"/>	
Queue State Detection	Use State	

- Assigned DID/CID

This device uses sip technology.

secret	<input type="text"/>	Set password
dtmfmode	RFC 2833	
canreinvite	No	
host	dynamic	
trustrpid	Yes	
sendrpid	No	
type	friend	
nat	Yes	Select nat "yes" Option
port	5060	
qualify	yes	
qualifyfreq	60	
transport	UDP Only	
avpf	No	
force_avp	No	
icesupport	No	
dtlsenable	No	
dtlsverify	No	
dtlssetup	Incoming and Outgoing	

dtlscertfile	
dtlsprivatekey	
encryption	No
callgroup	
pickupgroup	
disallow	
allow	
dial	SIP/1000
accountcode	
mailbox	1000@device
vmexten	
deny	0.0.0.0/0.0.0.0
permit	0.0.0.0/0.0.0.0
Class of Service	ALLOW ALL (Default)

- Dictation Services

Dictation Service	Disabled
Dictation Format	Ogg Vorbis
Email Address	

- Fax

Enabled	<input type="checkbox"/>
Fax Email	
Attachment Format	pdf

- Language

Language Code	
---------------	--

- Recording Options

Inbound External Calls	Always	Don't Care	Never	" select Always option for inbound outbound external call "
Outbound External Calls	Always	Don't Care	Never	
Inbound Internal Calls	Always	Don't Care	Never	
Outbound Internal Calls	Always	Don't Care	Never	
On Demand Recording	Disable	Enable		
Record Priority Policy	10			
- Voicemail				

Status	Disabled <input type="button" value="▼"/>
VoiceMail Password <small>?</small>	<input type="text"/>
Email Address <small>?</small>	<input type="text"/>
Pager Email Address <small>?</small>	<input type="text"/>
Email Attachment <small>?</small>	<input type="button" value="yes"/> <input type="button" value="no"/>
Play CID <small>?</small>	<input type="button" value="yes"/> <input type="button" value="no"/>
Play Envelope <small>?</small>	<input type="button" value="yes"/> <input type="button" value="no"/>
Delete Voicemail <small>?</small>	<input type="button" value="yes"/> <input type="button" value="no"/>
VM Options <small>?</small>	<input type="text"/>
VM Context <small>?</small>	default
- VmX Locater	

VmX Locater™ ? Disabled
Use When: unavailable busy
Voicemail Instructions: ? Standard Voicemail prompts.

Press 0: ? Go To Operator
Press 1: ?
Press 2: ?

- Optional Destinations

No Answer ? Unavail Voicemail if Enabled

CID Prefix ?

Busy ? Busy Voicemail if Enabled

CID Prefix ?

Not Reachable ? Unavail Voicemail if Enabled

CID Prefix ?

5. Queue Section

Search modules

- > System
- > Agenda
- > Email
- > Fax
- > PBX
 - PBX Configuration
 - Operator Panel
 - Voicemails
 - Calls Recordings
 - Batch Configurations
 - Conference
 - Tools
 - Endpoint Configurator
 - Reports
 - Extras
 - Call Center
 - Addons
 - My Extension

PBX Configuration

- Basic
 - Class of Service
 - Extensions
 - Feature Codes
 - Outbound Routes
 - Trunks
- Inbound Call Control
 - Announcements
 - Blacklist
 - Call Flow Control
 - Call Recording
 - CallerID Lookup Sources
 - DAHDI Channel DIDs
 - Dynamic Routes
 - Follow Me
 - IVR
 - Inbound Routes
 - Queue Priorities
 - Queues
- Intercom & Conference
 - Conferences
 - Languages
 - Misc Applications
 - Misc Destinations
 - Music on Hold
 - PIN Sets
 - Paging and Intercom
 - Parking
 - Remote Access
 - Callback
 - DISA

Add Queue

Add Queue

Add Queue
601:queue

Queue Number:

Queue Name:

Queue Password:

Generate Device Hints:

Call Confirm:

Call Confirm Announce:

CID Name Prefix:

Wait Time Prefix:

Alert Info:

Static Agents:

Extension Quick Pick:

Dynamic Members:

Extension Quick Pick:

Restrict Dynamic Agents:

Agent Restrictions:

Queue: 601

[Delete Queue](#)

Used as Destination by 1 Object: [?](#)

[Edit Queue](#)

Add Queue
601:queue

Queue Name: queue

Queue Password:

Generate Device Hints:

Call Confirm:

Call Confirm Announce:

CID Name Prefix:

Wait Time Prefix:

Alert Info:

Static Agents:

(pick extension)

S1000,0
S1001,0
S1002,0
S1003,0
S1004,0

(pick extension)

Yes No

Extension Quick Pick:

Dynamic Members:

Extension Quick Pick:

Restrict Dynamic Agents:

General Queue Options

Ring Strategy: **fewestcalls**

Autofill: **Yes + (ringinuse=no)**

Skip Busy Agents: **0**

Queue Weight: **Inherit**

Music on Hold Class: **MoH Only**

Join Announcement: **None**

Call Recording: **wav**

Recording Mode: **After Answered**

Caller Volume Adjustment: **No Adjustment**

Agent Volume Adjustment: **No Adjustment**

Mark calls answered elsewhere:

Timing & Agent Options

Max Wait Time: **Unlimited**

Max Wait Time Mode: **Strict**

Agent Timeout: **15 seconds**

Agent Timeout Restart: **No**

Retry: **5 seconds**

Wrap-Up-Time: **0 seconds**

Member Delay: **0 seconds**

Agent Announcement: **None**

Report Hold Time: **No**

Auto Pause: **No**

Auto Pause on Busy: **No**

Auto Pause on Unavailable: **No**

Auto Pause Delay: **0**

Capacity Options

Max Callers:	<input type="text" value="0"/>
Join Empty:	<input type="text" value="Strict"/>
Leave Empty:	<input type="text" value="No"/>
Penalty Members Limit:	<input type="text" value="Honor Penalties"/>

Caller Position Announcements

Frequency:	<input type="text" value="0 seconds"/>
Announce Position:	<input type="text" value="No"/>
Announce Hold Time:	<input type="text" value="No"/>

Periodic Announcements

IVR Break Out Menu:	<input type="text" value="None"/>
Repeat Frequency:	<input type="text" value="0 seconds"/>

Events, Stats and Advanced

Event When Called:	<input type="button" value="Enabled"/> <input type="button" value="Disabled"/>
Member Status Event:	<input type="button" value="Enabled"/> <input type="button" value="Disabled"/>
Service Level:	<input type="text" value="1 minute"/>
Agent Regex Filter:	<input type="text"/>

Fail Over Destination

<input type="text" value="Ring Groups"/>	<input type="text" value="Ringgrp <600>"/>
--	--

Queue Continue Destination

<input type="text" value="== choose one =="/>

Reset Queue Stats

Run:	<input type="text" value="Never"/>
------	------------------------------------

6.Add Ring Group

Issabel

Search modules

- System
- Agenda
- Email
- Fax
- PBX
- PBX Configuration
- Operator Panel
- Voicemails
- Calls Recordings
- Batch Configurations
- Conference
- Tools
- Endpoint Configurator
- Reports
- Extras
- Call Center
- Addons

Inbound Call Control

- Announcements
- Blacklist
- Call Flow Control
- Call Recording
- CallerID Lookup Sources
- DAHDI Channel DIDs
- Dynamic Routes
- Follow Me
- IVR
- Inbound Routes
- Queue Priorities
- Queues
- Ring Groups
- Set CallerID
- Time Conditions
- Time Groups
- Internal Options & Configuration**
- Conferences
- Languages
- Misc Applications
- Misc Destinations
- Music on Hold
- PIN Sets
- Paging and Intercom
- Parking
- System Recordings
- Voicemail Blasting
- Remote Access
- Callback

PBX Configuration

Add Ring Group

Add Ring Group

Ring-Group Number: 602
 Group Description: ringgrp
 Ring Strategy: ringall
 Ring Time (max 300 sec): 20
 Extension List: (pick extension)
 Extension Quick Pick: None
 Announcement: Ring
 Play Music On Hold?:
 CID Name Prefix:
 Alert Info:
 Ignore CF Settings:
 Skip Busy Agent: **(selected)**
 Enable Call Pickup:
 Confirm Calls:
 Remote Announce: Default
 Too-Late Announce: Default
 Change External CID Configuration
 Mode: Default

Used as Destination by 1 Object: [Edit Ring Group](#)

Group Description: ringgrp
 Ring Strategy: ringall
 Ring Time (max 300 sec): 20
 Extension List: 2002, 2003, 2004, 2005, 2001
 Extension Quick Pick: None
 Announcement: Ring
 Play Music On Hold?:
 CID Name Prefix:
 Alert Info:
 Ignore CF Settings:
Skip Busy Agent: (selected)
 Enable Call Pickup:
 Confirm Calls:
 Remote Announce: Default
 Too-Late Announce: Default

Change External CID Configuration

Mode:

Fixed CID Value:

Call Recording

Record Calls:

Destination if no answer:

Terminate Call

7.Add Time Group

PBX / PBX Configuration

Search modules:

- System
- Agenda
- Email
- Fax
- PBX**
- PBX Configuration
- Operator Panel
- Voicemails
- Calls Recordings
- Batch Configurations
- Conference
- Tools
- Endpoint Configurator
- Reports
- Extras
- Call Center
- Addons
- My Extension
- Security
- History

Inbound Call Control

- Class of Service
- Extensions
- Feature Codes
- Outbound Routes
- Trunks
- Inbound Call Control**
- Announcements
- Blacklist
- Call Flow Control
- CallerID Lookup Sources
- DAHDI Channel DIDs
- Dynamic Routes
- Follow Me
- IVR
- Inbound Routes
- Queue Priorities
- Queues
- Ring Groups
- Set CallerID
- Time Conditions
- Time Groups**
- Internal Options & Configuration
- Conferences
- Languages
- Misc Applications
- Misc Destinations
- Music on Hold
- PIN Sets
- Paging and Intercom
- Parking
- System Recordings
- Voicemail Blasting
- Remote Access
- Callback
- DISA
- Advanced**
- Asterisk Info
- Asterisk Logfiles
- Custom Destinations
- Custom Extensions

Edit Time Group: Office hour

Server time: 14:36:52 Add Time Group Office hour <2>

Country:Nepal

+ Time Group

- Used By

Office hour
- 8 - 09:30-18:00[sun-fri]1-31[jan-dec]

Name	Office hour
Time to start:	09 :30
Time to finish:	18 :00
Week Day start:	Sunday
Week Day finish:	Friday
Month Day start:	1
Month Day finish:	31
Month start:	January
Month finish:	December

The screenshot shows the PBX Configuration section under the PBX module. The left sidebar lists various configuration categories like System, Agenda, Email, Fax, PBX, and Reports. The PBX Configuration category is selected. The main content area is titled "Time Condition: 1". It displays a form for editing a time condition named "Office hour (*271)". The form includes fields for "Current Override" (No Override), "Change Override" (Unchanged), and "Time Group" (Office hour). Below the form, there are sections for "Destination if time matches" (Announcements, OfficeHr) and "Destination if time does not match" (Announcements, AfterOff). A "Submit" button is at the bottom.

7. OutBound Route

The screenshot shows the "Add Route" page under the PBX Configuration section. The left sidebar is identical to the previous screenshot. The main content area is titled "Add Route". It contains a "Route Settings" section with fields for "Route Name" (NTC_out), "Route CID" (+977 *****), "Override Extension" (unchecked), "Route Password" (empty), "Route Type" (Emergency, Intra-Company, default), "Music On Hold" (empty), "Time Group" (empty), and "Route Position" (Last after 9_outside). Below this is an "Additional Settings" section with "PIN Set" (None), "Call Recording" (Allow), and a note about dial patterns. A search bar at the top right contains the text "Add Route 9_outside".

Misc Applications
Misc Destinations
Music on Hold
PIN Sets
Paging and Intercom
Parking
System Recordings
Voicemail Blasting
Remote Access
Callback
DISA
Advanced
Asterisk Info
Asterisk Logfiles
Custom Destinations
Custom Extensions
Dialplan Injection
Route Congestion Messages
Voicemail Admin
Write in Queue Log
Settings
Advanced Settings
Asterisk IAX Settings
Asterisk Logfile Settings
Asterisk Manager Settings
Asterisk SIP Settings
Class of Service Admin
Option
Unembedded IssabelPBX

(prepend) + (prefix) | (match pattern) / (CallerID)]

+ Add More Dial Pattern Fields

Dial patterns wizards (pick one) ▾

Trunk Sequence for Matched Routes

0 NTC_SIP ▾
1 ▾

Optional Destination on Congestion

Normal Congestion ▾

Submit Changes Duplicate Route

8.Inbound Route

Search modules

- System
- Agenda
- Email
- Fax
- PBX
 - PBX Configuration
 - Inbound Call Control
 - Announcements
 - Blacklist
 - Call Flow Control
 - Call Recording
 - CallerID Lookup Sources
 - DAHDI Channel DIDs
 - Inbound Routes**
 - Follow Me
 - IVR
- Voicemails
- Calls Recordings
- Batch Configurations
- Conference
- Tools
 - Internal Options & Configuration
 - Conferences
 - Languages
 - Misc Applications
 - Misc Destinations
 - Music on Hold
 - PIN Sets
 - Paging and Intercom
 - Parking
 - System Recordings
 - Voicemail Blasting
 - Remote Access**
 - Callback
 - DISA
- Reports
- Extras
- Call Center
- Addons
- My Extension

PBX PBX Configuration

Route: NTC_IN

Delete Route NTC_IN

Edit Incoming Route

Description: NTC_IN
DID Number: +977

CallerID Number:
CID Priority Route:

Options

Alert Info:
CID name prefix:
Music On Hold: Default ▾
Signal RINGING:
Pause Before Answer:

Privacy

Privacy Manager: No ▾
Language:

Language:
Fax Detect

Add Incoming Route
All DIDs (toggle sort)
User DIDs
General DIDs
Unused DIDs

NTC_IN
+977 / any CID

Advanced

- Asterisk Info
- Asterisk Logfiles
- Custom Destinations
- Custom Extensions
- Dialplan Injection
- Route Congestion Messages
- Voicemail Admin
- Write in Queue Log

Settings

- Advanced Settings
- Asterisk IAX Settings
- Asterisk Logfile Settings
- Asterisk Manager Settings
- Asterisk SIP Settings
- Class of Service Admin

Option

- Unembedded IsabelPBX

Detect Faxes ? :

Call Recording

Call Recording ? :

CID Lookup Source

Source ? :

Set Destination

Time Conditions Office hour

9. Groups Section

Group	Description
Administrator	Total Access
Operator	Operator
Extension	Extension User
Agent	Agent
Supervisor	Supervisor
Group	

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10. Group Permissions

For Agent

The screenshot shows the 'Group Permissions' page under the 'System / Users' navigation. A filter bar at the top indicates 'Filter applied: Group = Agent'. The main table lists resources with their descriptions, availability, and enable status. The 'call_center' resource is highlighted with a pink background.

Resource	Description	Available	Enabled	Custom privileges
system	System	23	0	
agenda	Agenda	2	0	
email_admin	Email	9	0	
fax	Fax	8	0	
pbxconfig	PBX	12	0	
reports	Reports	10	0	
extras	Extras	4	0	
call_center	Call Center	27	1	
addons	Addons	2	0	
my_extension	My Extension	1	0	
security	Security	13	0	
Resource	Description	Available	Enabled	Custom privileges

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This screenshot shows the same 'Group Permissions' page as above, but with a different selection. The 'agent_console' resource is now highlighted with a pink background and has a checked checkbox next to it in the first column. The 'Agent Console' privilege is also highlighted in pink.

Resource	Description	Available	Enabled	Custom privileges
system	System	23	0	
agenda	Agenda	2	0	
email_admin	Email	9	0	
fax	Fax	8	0	
pbxconfig	PBX	12	0	
reports	Reports	10	0	
extras	Extras	4	0	
call_center	Call Center	27	1	
agent_console	Agent Console			
outgoing_calls	Outgoing Calls	3	0	
ingoing_calls	Ingoing Calls	3	0	

For supervisor

The screenshot shows the Issabel web interface with a dark theme. The left sidebar has a purple header "Issabel" with a gear icon. The main menu includes "Search modules", "System" (selected), "Dashboard", "Network", "Users", "Groups", "Group Permissions" (selected), "Shutdown", "Hardware Detector", "Updates", "Backup/Restore", "Web Console", "Preferences", "Theme Designer", "Agenda", and "Email". The top right shows a user icon "admin" and notification icons.

The main content area is titled "System / Users / Group Permissions". A message says "Filter applied! Group = supervisor". It shows a table of resources:

Resource	Description	Available	Enabled	Custom privileges
system	System	23	0	
agenda	Agenda	2	0	
email_admin	Email	9	0	
fax	Fax	8	0	
pbxconfig	PBX	12	2	
reports	Reports	10	1	
extras	Extras	4	0	
call_center	Call Center	27	17	
addons	Addons	2	0	
my_extension	My Extension	1	0	
security	Security	13	0	

Below this, another table shows the same resources with a different filter applied:

Resource	Description	Available	Enabled	Custom privileges
system	System	23	0	
agenda	Agenda	2	0	
email_admin	Email	9	0	
fax	Fax	8	0	
pbxconfig	PBX	12	2	
reports	Reports	10	1	
cdrreport	CDR Report			[Custom privileges]
channelusage	Channels Usage			
billing	Billing	4	0	
asterisk_log	Asterisk Logs			
graphic_report	Graphic Report			
summary_by_extension	Summary			

[System](#) / [Users](#) / [Group Permissions](#)

[Save](#)

Privilege	Description
<input checked="" type="checkbox"/> reportany	View CDRs from all users, not just their own
<input type="checkbox"/> deleteany	Delete CDRs from the system report

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	extras	Extras	4	0
	call_center	Call Center	27	17
<input checked="" type="checkbox"/>	agent_console	Agent Console		
	outgoing_calls	Outgoing Calls	3	2
	ingoing_calls	Ingoing Calls	3	0
	agentoptions	Agent Options	3	1
<input checked="" type="checkbox"/>	break_administrator	Breaks		
	forms	Forms	2	0

Filter applied: Group = Supervisor

Resource	Description	Available	Enabled	Custom privileges
 system	System	23	0	
 agenda	Agenda	2	0	
 email_admin	Email	9	0	
 fax	Fax	8	0	
 pbxconfig	PBX	12	2	
 pbxadmin	PBX Configuration			[Custom privileges]
<input checked="" type="checkbox"/> control_panel	Operator Panel			
 voicemail	Voicemails			[Custom privileges]
<input checked="" type="checkbox"/> monitoring	Calls Recordings			[Custom privileges]
 endpoints	Batch Configurations	1	0	
 conference	Conference			
 tools	Tools	5	0	
 endpoint_configurator	Endpoint Configurator			

Save	
Privilege	Description
<input checked="" type="checkbox"/>	reportany List recordings from all users, not just their own
<input checked="" type="checkbox"/>	downloadany Listen and download recordings from all users, not just their own
<input type="checkbox"/>	deleteany Delete recordings from the system

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-	call_center	Call Center	27	17
<input checked="" type="checkbox"/>	agent_console	Agent Console		
-	outgoing_calls	Outgoing Calls	3	2
<input type="checkbox"/>	campaign_out	Campaigns		
<input checked="" type="checkbox"/>	dont_call_list	Do not Call List		
<input checked="" type="checkbox"/>	external_url	External URLs		
<input type="checkbox"/>	ingoing_calls	Ingoing Calls	3	0
<input type="checkbox"/>	agentoptions	Agent Options	3	1
<input checked="" type="checkbox"/>	break_administrator	Breaks		

-	reports_ingoing_call	Reports	13	12
<input checked="" type="checkbox"/>	reports_break	Reports Break		
<input checked="" type="checkbox"/>	calls_detail	Calls Detail		
<input checked="" type="checkbox"/>	calls_per_hour	Calls per hour		
<input checked="" type="checkbox"/>	calls_per_agent	Calls per Agent		
<input checked="" type="checkbox"/>	hold_time	Hold Time		
<input checked="" type="checkbox"/>	login_logout	Login Logout		
<input checked="" type="checkbox"/>	ingoing_calls_success	Ingoing Calls Success		
<input checked="" type="checkbox"/>	graphic_calls	Graphic Calls per hour		
<input checked="" type="checkbox"/>	rep_agent_information	Agent Information		
<input checked="" type="checkbox"/>	rep_agents_monitoring	Agents Monitoring		
<input checked="" type="checkbox"/>	rep_trunks_used_per_hour	Trunks used per hour		
<input checked="" type="checkbox"/>	rep_incoming_calls_monitoring	Incoming calls monitoring		

11. Create User

The screenshot shows the Issabel system's user management interface. The top navigation bar includes a logo, a search bar, and user account information. The left sidebar lists various system modules like System, Network, Users, Groups, and PBX Profile.

User List View:

Login	Real Name	Group	Extension
admin		Administrator	No extension associated
1000	Agent	Administrator	1000
1001	Agent	Agent	1001
1002	Agent	Agent	1002
1003	Agent	Agent	1003
1004	Agent	Agent	1004
1005	Agent	Agent	1005

User Creation Form:

Fields include: Login (1000), Password (*****), Group (Administrator), Extension (1000), Name (Agent), and Retype password (*****).

12. Form Designer Section

The screenshot shows the Issabel system's form designer interface. The top navigation bar includes a logo, a search bar, and user account information. The left sidebar lists various call center modules like Call Center, Agent Console, Outgoing Calls, Ingoing Calls, Agent Options, Breaks, and Forms.

Form Designer View:

Name	Description	Status	Options
Form		Active	Edit

A note at the bottom states: "Issabel is licensed under GPL. 2006 - 2022."

Call Center / Forms / Form Designer

Save **Cancel**

Order	Field Name	Type	Values
1	Name	Type Text	-
	new field	Type Text	+

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13. Breaks Section

Call Center / Breaks

Create New Break **Activate** **Deactivate**

Name	Description	Status	Options
Lunch Break	Lunch Break	Active	[Edit Break]
Restroom Break	Restroom Break	Active	[Edit Break]

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Call Center / Breaks

Edit Break

< Cancel **Apply Changes**

Name: *	Lunch Break
Description: *	Lunch Break

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Call Center / Breaks

Edit Break

Name: Restroom Break

Description: Restroom break

< Cancel Apply Changes

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14. Incoming Queues Section

Call Center / Ingoing Calls / Queues

+ Select Queue Activate Change Status Show Filter

Name	Queue	Status	Options
601		Active	[edit]

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Call Center / Ingoing Calls / Queues

Edit Queue

Queue: * 601 queue

Script: *

< Cancel Save

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15. Ingoing Campaigns Section

The screenshot shows the Issabel Call Center interface. On the left is a sidebar with a purple header "Issabel" and a search bar. Below the search bar is a tree menu with the following structure:

- System
- Agenda
- Email
- Fax
- PBX
- Reports
- Call Center
 - Agent Console
 - Outgoing Calls
 - Ingoing Calls
 - Queues
 - Clients
 - Ingoing Campaigns
 - Agent Options
 - Breaks
 - Forms
 - Reports

The "Ingoing Campaigns" item under "Ingoing Calls" is highlighted with a pink background. The main content area has a dark header with the title "Ingoing Campaigns". Below the header are several buttons: "Create New Campaign" (pink), "Activate" (grey), "Change Status" (grey), "Delete" (red), and "Show Filter" (grey). A message "Filter applied: Status = Active" is displayed. A table follows, with columns: Campaign Name, Range Date, Schedule per Day, Queue, Completed calls, Average time, Status, and Options. One row is visible: "Incoming" (Range Date: 2022-03-01 - 2022-12-31, Schedule per Day: 10:00:00 - 18:00:00, Queue: 601, Completed calls: 9376, Average time: N/A, Status: Active, Options: [CSV, Detail]). At the bottom of the content area, a note says "Issabel is licensed under GPL. 2006 - 2022."

This screenshot shows the "Edit Campaign" dialog for the "Incoming" campaign. The title bar says "Edit Campaign \"Incoming\"". There are two buttons at the top: "Apply changes" (pink) and "Cancel".
The form fields are:

- Name: * Incoming
- Range Date: * 01-May-2022 Start | 30-Oct-2022 End
- Schedule per Day: 10 : 00 : 00 Start time | 18 : 00 : 00 End time
- Form: * Form
- Manage Forms
- External URLs: (No external URL)
- Manage External URLs
- Queue: 601 queue
- Manage Queues
- Script: * (with a rich text editor toolbar)

16. Check Operator Panel

The screenshot shows the Issabel Operator Panel interface. On the left, a sidebar lists modules: System, Agenda, Email, Fax, PBX (selected), PBX Configuration, Operator Panel (selected), Voicemails, Calls Recordings, Batch Configurations, Conference, Tools, and Endpoint Configurator. The main area has tabs for PBX and Operator Panel. Under Operator Panel, there are sections for Connected Extensions, Areas, Conferences, Parking lots, and Queues. The Connected Extensions section shows various agents and supervisor extensions. The Areas section shows three areas: Area 1 - 0 ext, Area 2 - 0 ext, and Area 3 - 0 ext. The Conferences section is empty. The Parking lots section shows four parked calls. The Queues section shows one queue named '601: queue'.

IPhone and microsip Configuration

IP Phone configuration

The screenshot shows the Fanvil X3S/X3SP web configuration interface. The left sidebar includes System, Network, Line, Phone settings (selected), Phonebook, Call logs, and Function Key. The main page shows SIP account settings for Line SIP 1. It includes fields for Username (2001), Display name (Issabel server IP), Realm (Issabel Server IP), SIP Server 1 (Register Address: 5060, Register Port: 5060, Transportation Protocol: UDP, Registration Expiration: 3600), SIP Server 2 (Register Address: 5060, Register Port: 5060, Transportation Protocol: UDP, Registration Expiration: 3600), and a NOTE section describing the account. A note states: "Description: It shows phone registration account basic settings and sip account function advanced settings."

Microsip Configuration (desktop base telephone application)

(<https://www.microsip.org/downloads>)

Account Name	agent1
SIP Server	██████████ Issable Server IP
SIP Proxy	
Username *	1002
Domain *	██████████ Isabel Server IP
Login	1002
Password	*****
Display Name	
Voicemail Number	
Dialing Prefix	
Dial Plan	
<input type="checkbox"/> Hide Caller ID	
Media Encryption	Disabled
Transport	UDP
Public Address	Auto
Register Refresh	300
	Keep-Alive 15
	<input type="checkbox"/> Publish Presence
	<input type="checkbox"/> Allow IP Rewrite
	<input type="checkbox"/> ICE
	<input type="checkbox"/> Disable Session Timers

