

# SBC Troubleshooting

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# Foreword

- This course is mainly:
  - Guide Solutions for Call Voice Related Issues
  - Guide Problems & Solutions for Calling
  - Guide Problems & Solutions for Register

# Course Objective

Through this course  
you will be able to



How To Solve The Problem Of Registration Failure



How To Solve The Problem Of Call Failure



How To Solve Call Voice Related Issues

# Contents

- 1 Chapter One Solution to Registration Failure
- 2 Chapter Two Solution to Call Failure
- 3 Chapter Three Solution to Call Voice Related Issues

# Chapter One

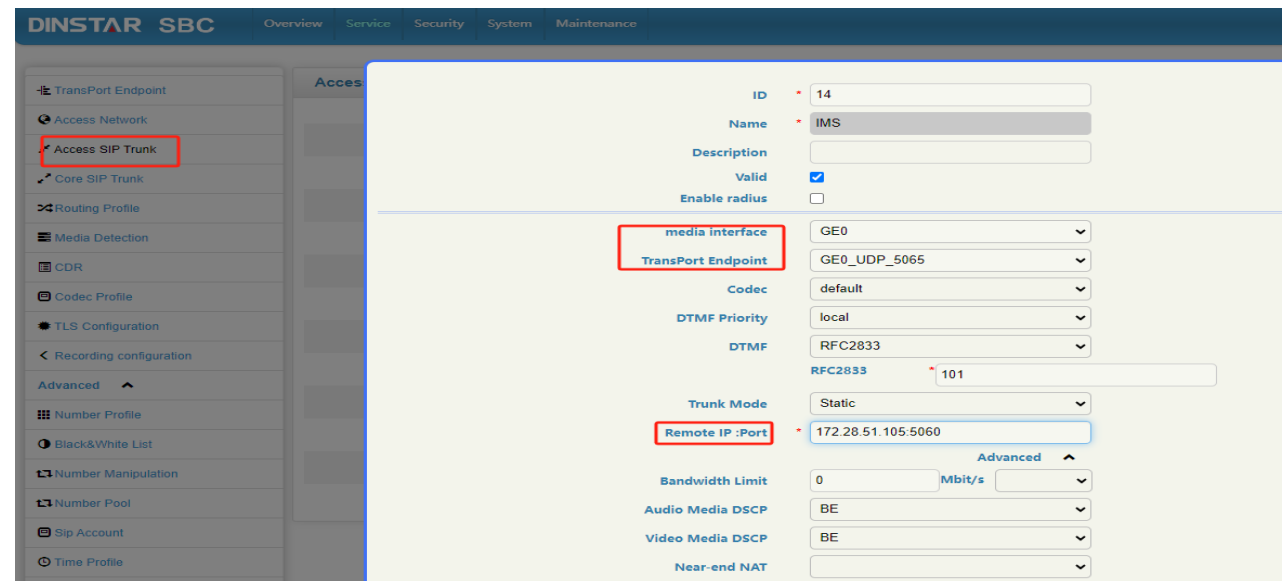
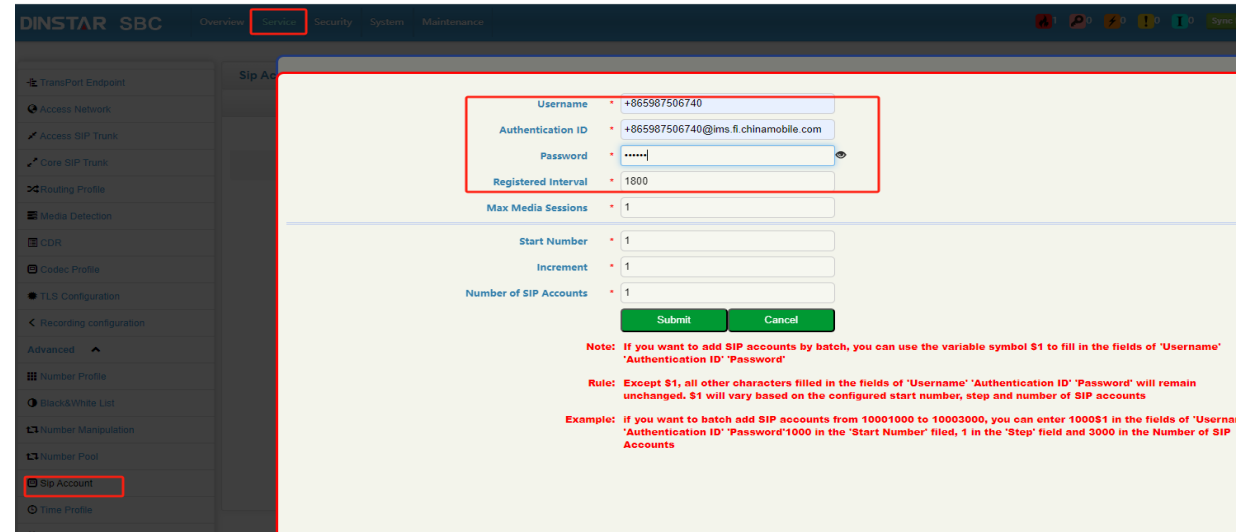
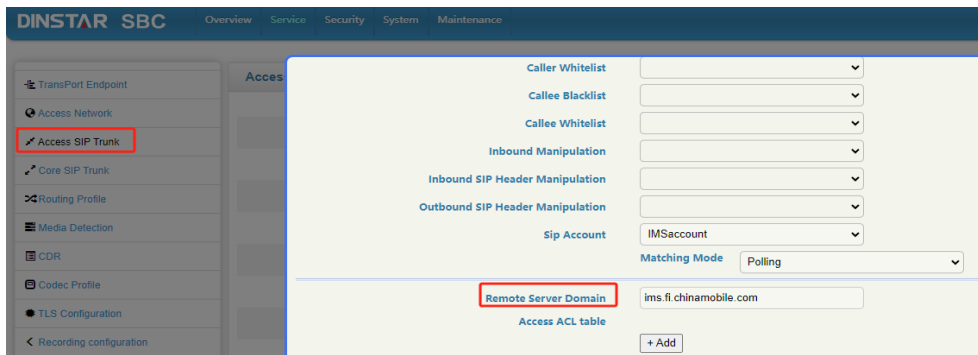
## Solution to Registration Failure

01

# Failed to Register IMS Account

- View Configuration

- SIP account:** check the username, authentication ID, and password are correct, with expire time of 1800s or 3600s
- Access SIP Trunk:** Check the configuration of media interface, TransPort Endpoint, the remote IP and the remote server domain



# Failed to Register IMS Account

- View Configuration

3. **Call Routing:** check if the request-uri IP Addr. to IP Addr. and from IP Addr. are selected as remote domain

The screenshot displays the DINSTAR SBC configuration interface. On the left, a sidebar menu lists various configuration options, with 'Call Routing' highlighted under the 'SIP Trunk Group' section. The main panel shows the 'Call Routing' configuration for a specific SIP Trunk. The 'Callee SIP URL' section includes a 'Source' dropdown set to 'Core SIP Trunk' and a text field containing '7<PBX>'. Below this is a 'SIP Methods' field and a 'Request URI' field. The 'The source of ring back tone' is set to 'remote'. The 'Destination' section shows 'Access SIP Trunk' and '14<IMS>'. The 'Outbound Manipulation' is set to 'PEM'. The 'SIP Header Passthrough' section includes 'request-uri Username' set to 'to inManipulation user', 'request-uri IP Addr.' set to 'remote domain', 'to Username' set to 'to inManipulation user', 'to IP Addr.' set to 'remote domain', 'to Username Displayed' set to 'to display', 'from Username' set to 'from inManipulation user', 'from IP Addr.' set to 'remote domain', and 'from Username Displayed' set to 'from display'. At the bottom right, there are 'Save' and 'Cancel' buttons.

# Failed to Register IMS Account

- PING

1. Click on **Maintenance - Ping**
2. Select network port
3. Enter the IP address of IMS
4. Check the results to determine if the networks are interconnected (only applicable to IMS without ping ban)

DINSTAR SBC Overview Service Security System Maintenance

Log  
Reset  
Ping  
Tracert  
Capture  
Regular Expression  
Warning  
+SNMP configuration  
DRP configuration  
NMS service configuration  
Signal Track configuration  
WebRTC

Ping successful. Please check the data below

Ping

Interface GE0

IPv4/IPv6 IPV4

Destination IP 172.28.51.105

Times(1-100) 4

Packet Size(56-1024) 56

Start

```
PING 172.28.51.105 (172.28.51.105) from 172.28.3.11: 56 data bytes
64 bytes from 172.28.51.105: seq=0 ttl=64 time=0.566 ms
64 bytes from 172.28.51.105: seq=1 ttl=64 time=0.450 ms
64 bytes from 172.28.51.105: seq=2 ttl=64 time=0.476 ms
64 bytes from 172.28.51.105: seq=3 ttl=64 time=0.433 ms

--- 172.28.51.105 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.433/0.481/0.566 ms
```



# Failed to Register IMS Account

- Packet capture

1. Click on **Maintenance - Capture**
2. Default configuration, click start
3. Reproduce the problem, the expire time is relatively long, you can disable the account first and then enable it again
4. Click to stop & Download

Capture

Server Type: Local Server

Filter Group: Customization value [Delete]

Type: [Dropdown]

Port Range: 1 ~ 65535

IPv4/IPv6: IPV4

Source IP: [Input]

Destination IP/Domain: [Input]

Transport: ☒ TCP ☒ UDP ☒ ICMP ☒ ARP

+ Add

Time: 5 min

File Max Size: 20 MB

**Start** **Stop & Download**

Note: 1. Click the Add button to add filtering group. You can set filtering rule for each group.  
2. After selecting MFU, the corresponding port range will be configured by default.  
3. When the set time expires, packet capturing will automatically stop.

# SIP proxy registration failed

- View Configuration

1. **Access Network:** Check if the IP and port of the registered terminal are consistent with the selected access network
2. **Core SIP Trunk:** Check if the IP and port of PBX are correct
3. **SIP account :** Check if the account and password matches the one provided by PBX

The screenshot shows the 'Access Network' configuration page in the DINSTAR SBC web interface. The left sidebar lists various configuration options, with 'Access Network' highlighted. The main panel displays fields for ID (2), Name (iad), Description, Valid (checked), and Enable radius (unchecked). Below these, the 'media interface' is set to GE0 and the 'Transport Endpoint' is set to GE0\_UDP\_5060. The 'IP Range' and 'Subnet Mask' fields are empty, with a '+ IP Range' button below them. The 'Codec' is set to default, 'DTMF Priority' is local, and 'DTMF' is RFC2833. The 'RFC2833' field has a value of 101. The 'Advanced' tab is selected at the bottom.

The screenshot shows the 'Core SIP Trunk' configuration page in the DINSTAR SBC web interface. The left sidebar lists various configuration options, with 'Core SIP Trunk' highlighted. The main panel displays fields for ID (3), Name (uc), Description, Valid (checked), and Enable radius (unchecked). Below these, the 'media interface' is set to GE0 and the 'Transport Endpoint' is set to GE0\_UDP\_5065. The 'Codec' is set to default, 'DTMF Priority' is local, and 'DTMF' is RFC2833. The 'RFC2833' field has a value of 101. The 'Trunk Mode' is set to Static, and the 'Remote IP :Port' is set to 172.27.10.14:5060. The 'Save' and 'Cancel' buttons are at the bottom right.

# SIP proxy registration failed

- View Configuration
4. **Route:** Check if the relevant routes have been configured

DINSTAR SBC

OverviewServiceSecuritySystemMaintenance

Sync File

Administrator : admin

Logout

Language: English

Transport Endpoint

Access Network

Access SIP Trunk

Core SIP Trunk

Routing Profile

SIP Trunk Group

**Call Routing**

Media Detection

The configurations has been applied successfully.

Call Routing

+ Add

Priority	Description	Condition	Destination/Manipulation Rule	
999	-	3<uc>	2<iad> /	<div></div> <div></div> <div></div>
999	-	2<iad>	3<uc> /	<div></div> <div></div> <div></div>
1000	MTG-呼叫器142	10<V6_MTG_40391>	8<1_42> /	<div></div> <div></div> <div></div>
1001	呼叫器-MTG	15<10_41>	16<V6_MTG_4039> /	<div></div> <div></div> <div></div>

# SIP proxy registration failed

- Packet capture

1. Click on **Maintenance - Capture**
2. Default configuration, click start
3. Registration terminal initiates registration again
4. Click to stop & Download

The screenshot shows the 'Capture' configuration window in the DINSTAR interface. The window has a title bar 'Capture' and a light gray background. The configuration is organized into several sections:

- Server Type:** A dropdown menu set to 'Local Server'.
- Filter Group:** A section with a 'Type' dropdown set to 'Customization value' and a 'Delete' button.
- Port Range:** Input fields for '1' and '65535' with a tilde '~' between them.
- IPv4/IPv6:** A dropdown menu set to 'IPv4'.
- Source IP:** An empty input field.
- Destination IP/Domain:** An empty input field.
- Transport:** Checkboxes for 'TCP', 'UDP', 'CMP', and 'ARP', all of which are checked.
- + Add:** A button to add a new filter group.
- Time:** An input field set to '5' with a 'min' unit label.
- File Max Size:** An input field set to '20' with a 'MB' unit label.
- Buttons:** Two green buttons, 'Start' and 'Stop & Download', are located at the bottom of the configuration area. The 'Start' button is highlighted with a red rectangle.

Below the configuration area, there is a red note:

Note: 1.Click the Add button to add filtering group. You can set filtering rule for each group.  
2.After selecting MFU, the corresponding port range will be configured by default.  
3.When the set time expires, packet capturing will automatically stop.

At the bottom of the window is a large, empty gray area, likely for displaying captured packets.

# Contents

- 1 Chapter One Solution to Registration Failure
- 2 Chapter Two Solution to Call Failure
- 3 Chapter Three Solution to Call Voice Related Issues

# Chapter Two

## Solution to Call Failure

02

# Call Failed

- View Trunks & registration status
1. Click **Overview - Access Network Status/Access Trunk Status/Core Trunk Status**, Check if the trunks status is normal
  2. Click **Overview - Register Status/SIP Account Status**, Check if the registration status is normal

DINSTAR SBC Overview Service Security System Maintenance

System Status

- Access Network Status
- Access Trunk Status
- Core Trunk Status
- Calls Status
- Register Status
- Attack List
- SIP Account Status
- Statistics
- Monitor Status
- CDR
- BFD Status
- Radius server status

### Access Network Status

Search:  Submit Refresh

Name	Status	CPS	Registered	Inbound Calls				Outbound Calls			
				ASR	Transcoded	Current Calls	Total Calls	ASR	Transcoded	Current Calls	Total Calls
fxsip	true	0	0	0	0	0	0	0	0	0	0
iad	true	0	0	0	0	0	0	0	0	0	0
iad_register	true	0	0	0	0	0	0	0	0	0	0
trk_subnet	true	0	0	0	0	0	0	0	0	0	0
webtrc	true	0	0	0	0	0	0	0	0	0	0

DINSTAR SBC Overview Service Security System Maintenance

System Status

- Access Network Status
- Access Trunk Status
- Core Trunk Status
- Calls Status
- Register Status
- Attack List
- SIP Account Status
- Statistics
- Monitor Status
- CDR

### SIP Account Status

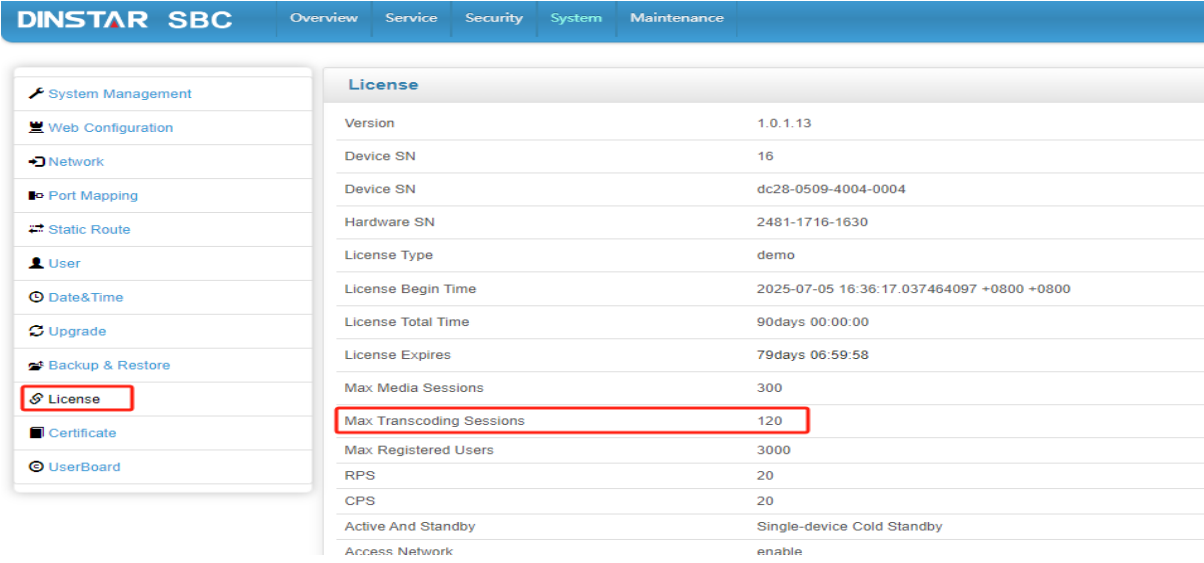
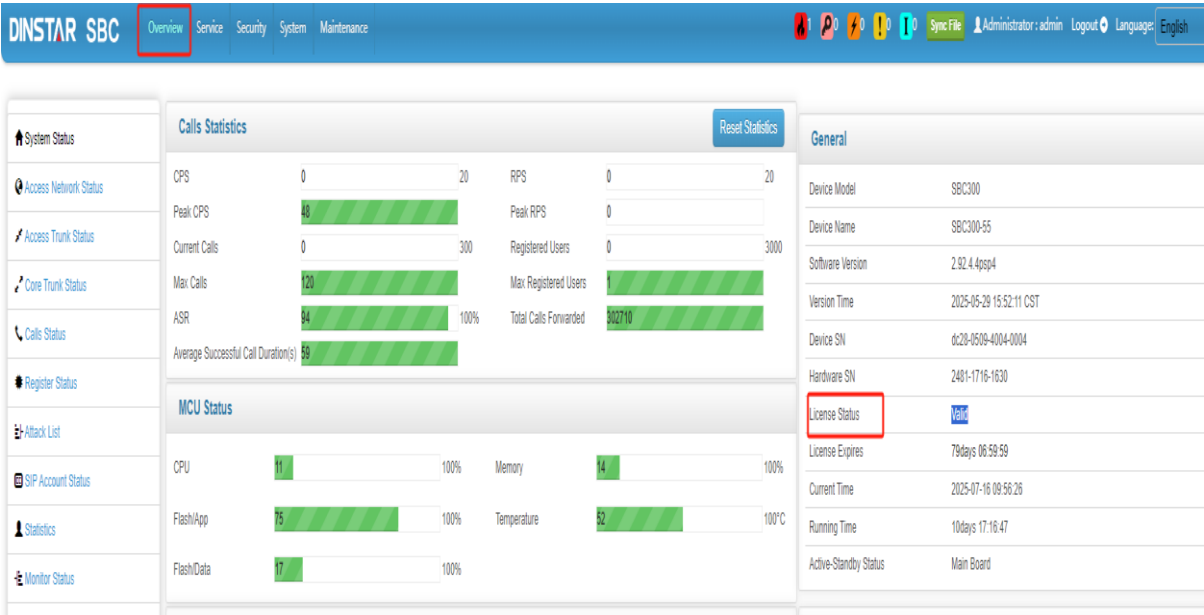
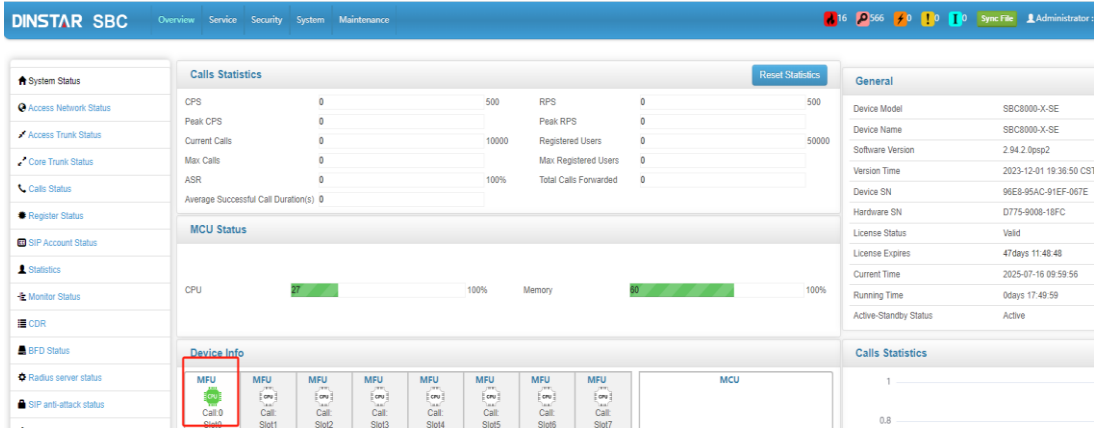
10 Search:  Status  Group  Username  Endpoint  Submit

Total: 1  
Total Successful Calls: 0

Index	Status	Name	Username	Endpoint	Current Concurrence	Max Concurrence	Times of Use
1	registering	IMSAccount	+865987506740	IMS	0	1	0

# Call Failed

- View License
1. Click **Overview - System Status**, Check the License Status
  2. For calls that require transcoding, it is necessary to check if there is transcoding permission(Sbc8000 still needs to check the DSP status)





# Call Failed

- View Configuration

1. Click **Service - Access SIP Trunk /Core SIP Trunk**, Check if the media interface, TransPort Endpoint, the remote IP and port is correct
2. Click **Routing Profile->Call routing**, Check if the routing source and destination are correct
3. Same routing source, check routing priority

DINSTAR SBC Overview Service Security System Maintenance

TransPort Endpoint Access

Access Network

Access SIP Trunk

Core SIP Trunk

Routing Profile

Media Detection

CDR

Codec Profile

TLS Configuration

Recording configuration

Advanced

ID: 1

Name: tg1\_1\_46

Description:

Valid: ☒

Enable radius: ☐

media interface: GE0

TransPort Endpoint: GE0\_UDP\_5065

Codec: default

DTMF Priority: local

DTMF: RFC2833

RFC2833: 101

Trunk Mode: Static

Remote IP :Port: 172.28.1.46:5060

Advanced

Save Cancel

DINSTAR SBC Overview Service Security System Maintenance

Call Routing

Priority	Description	Condition	Destination/Manipulation Rule
999	-	2<iad>-, SUBSCRIBE	9<core1> /
1000	MTG-呼出器142	10<V6_MTO_40391>	8<1_42> /
1001	呼出器-MTG	15<10_41>	16<V6_MTO_4039> /
1002	ucloess	7<PBX>	1<webtrc> /
1003	wstouc	1<webtrc>	7<PBX> /
1004	in	14<IMS>	7<PBX> /
1005	out	7<PBX>	14<IMS> /
1006	-	12<sipp>	13<sipp> /
1007	-	6<iad_core>	5<iad_register> /
1008	-	5<iad_register>	6<iad_core> /
1009	fw11	4<fwsip>	5<fwuc> /
1010	bk_routeback	4<bk_core>	3<bk_subnet> /

# Call Failed

- Get Network Capture

1. Click on **Maintenance – Capture**
2. Click Start
3. Reproduce the problem
4. Click Stop& Download

DINSTAR SBC

Overview Service Security System Maintenance

Log  
Reset  
Ping  
Tracert  
Capture  
Regular Expression  
Warning  
+SNMP configuration  
DRP configuration  
NMS service configuration  
Signal Track configuration  
Hardware Examination  
WebRTC

Capture

Server Type: Local Server

Filter Group Type: Customization value [Delete]

Port Range: 1 ~ 65535

IPv4/IPv6: IPv4

Source IP:

Destination IP/Domain:

Transport: ☒TCP ☒UDP ☒ICMP ☒ARP

+ Add

Time: 5 min

File Max Size: 20 MB

Start Stop & Download

Note: 1.Click the Add button to add filtering group. You can set filtering rule for each group.  
2.After selecting MFU, the corresponding port range will be configured by default.  
3.When the set time expires, packet capturing will automatically stop.

# Call Failed

- Getting The Log

1. Click on **Maintenance – Log - Log Management**
2. Level selection debug and click Start
3. Reproduce the problem
4. Click Export

The screenshot shows the DINSTAR SBC web interface. The top navigation bar includes tabs for Overview, Service, Security, System, and Maintenance. The Maintenance tab is active, displaying status icons for various services (Fire, Key, Lightning, Exclamation, I) and a Sync File button. The user is logged in as Administrator: rambo. On the left sidebar, the Log Management section is expanded, showing options for Login Log, Operational Log, Security Log, Log Management (selected), and Log Server. Below these are buttons for Reset, Ping, Tracert, Capture, and Regular Expression. The main content area is titled 'Log Management' and contains two sections: 'Log Record' and 'Log Export'. The 'Log Record' section has a 'Level' dropdown menu set to 'Debug' and a 'Time' input field set to '5 min'. A green 'Start' button is positioned below these fields. The 'Log Export' section features a green 'Export' button.

# Contents

- 1 Chapter One Solution to Registration Failure
- 2 Chapter Two Solution to Call Failure
- 3 Chapter Three Solution to Call Voice Related Issues

# Chapter Three

## Solution to Call Voice Related Issues

03

# Call Without Sound

- View Configuration

Click **Service - Access Network /Access SIP Trunk /Core SIP Trunk**, Check if the media interface is correct

The screenshot displays the DINSTAR SBC configuration interface. The left sidebar shows a navigation menu with the following items: TransPort Endpoint, Access Network, Access SIP Trunk (highlighted with a red box), Core SIP Trunk, Routing Profile, Media Detection, CDR, Codec Profile, TLS Configuration, Recording configuration, and Advanced. The main content area shows the configuration for the selected 'Access SIP Trunk'. The configuration fields are as follows:

Field	Value
ID	1
Name	tg1_1_46
Description	
Valid	<input checked="" type="checkbox"/>
Enable radius	<input type="checkbox"/>
media interface	GE0
TransPort Endpoint	GE0_UDP_5065
Codec	default
DTMF Priority	local
DTMF	RFC2833
RFC2833	101
Trunk Mode	Static
Remote IP :Port	172.28.1.46:5060

At the bottom right, there are 'Save' and 'Cancel' buttons, and an 'Advanced' dropdown menu.

# Call Without Sound

- Get Network Capture

1. Click on **Maintenance – Capture**
2. Click Start
3. Reproduce the problem
4. Click Stop& Download

DINSTAR SBC

Overview Service Security System Maintenance

Log  
Reset  
Ping  
Tracert  
Capture  
Regular Expression  
Warning  
+SNMP configuration  
DRP configuration  
NMS service configuration  
Signal Track configuration  
Hardware Examination  
WebRTC

Capture

Server Type: Local Server

Filter Group: Customization value [Delete]

Type: [Dropdown]

Port Range: 1 ~ 65535

IPv4/IPv6: IPv4

Source IP: [Input]

Destination IP/Domain: [Input]

Transport: ☒ TCP ☒ UDP ☒ ICMP ☒ ARP

+ Add

Time: 5 min

File Max Size: 20 MB

Start Stop & Download

Note: 1.Click the Add button to add filtering group. You can set filtering rule for each group.  
2.After selecting MFU, the corresponding port range will be configured by default.  
3.When the set time expires, packet capturing will automatically stop.



# THANKS



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