***ORIENTAÇÃO TÉCNICA***

***Configuração de Serviço de Voz R2 e ISDN utilizando CPE Aligera AG561***

Índice

[1. OBJETIVO 4](#_Toc12340697)

[2. *APLICAÇÃO* 4](#_Toc12340698)

[3. *GLOSSÁRIO* 4](#_Toc12340699)

[4. *EQUIPAMENTO* 4](#_Toc12340700)

[5. *CONFIGURAÇÃO INICIAL* 5](#_Toc12340701)

[5.1 Atualização de Software 5](#_Toc12340702)

[5.2 Configuração de usuário 6](#_Toc12340703)

[5.3 Configuração da interface de UPLINK 7](#_Toc12340704)

[5.3.1 Configuração com CVLAN: 7](#_Toc12340705)

[5.3.2 Configuração sem CVLAN: 7](#_Toc12340706)

[6. TOPOLOGIA 8](#_Toc12340707)

[7. CONFIGURAÇÃO DO SERVIÇO DE VOZ 8](#_Toc12340708)

[7.1 Configuração para atendimento a R2 8](#_Toc12340709)

[7.2 Configuração para atendimento a ISDN 14](#_Toc12340710)

[7.3 Configuração de chamada a cobrar 20](#_Toc12340711)

[7.4 Configuração de tomadas de circuitos 20](#_Toc12340712)

[7.5 Configuração do formato de envio e recepção de digítos na sinalização ISDN 21](#_Toc12340713)

[8. Anexos 21](#_Toc12340714)

[8.1 Documentação 21](#_Toc12340715)

[8.1.1 Manual de Configuração 22](#_Toc12340716)

[8.1.2 Manual do Usuário e Guia do Usuário 22](#_Toc12340717)

[8.2 Comandos para exibir configuração e para habilitar debug 22](#_Toc12340718)

[8.2.1 Comando para exibição de configuração 22](#_Toc12340719)

[8.2.2 Comandos para debugs 22](#_Toc12340720)

[9. *HISTÓRICO DE REVISÕES* 23](#_Toc12340721)

[10. *APROVAÇÕES* 24](#_Toc12340722)

**Figuras**

[Figura 1 - Roteador AG561 4](#_Toc12340723)

[Figura 2 - Interface E1 R2 / ISDN 4](#_Toc12340724)

[Figura 3 - Tela Inicial AG561 5](#_Toc12340725)

[Figura 4 - Aba de atualização de Firmware 6](#_Toc12340726)

[Figura 5 - Topologia de homologação de Voz 8](#_Toc12340727)

# OBJETIVO

Apresentar o procedimento de configuração do roteador AG561 da Aligera para o Serviço de Voz da Embratel

# *APLICAÇÃO*

O CPE AG561 é aplicável a rede NGN da Embratel provendo interoperabilidade SIP com o SoftX 3000 da Huawei e entregando para o cliente as sinalizações R2 e ISDN para o PABX.

A utilização desse documento aplica-se a Gerência de Configurações de Serviços IP, Gerência de Configuração de Telefonia, Gerência de Ativação e Gerência de Recuperação de Serviços.

# *GLOSSÁRIO*

|  |  |
| --- | --- |
| CPE | Costumer Premisses Equipament |
| PABX | Private Automatic Branch eXchange |
| ISDN | Integrated Services Digital Network |
| TDM | Time Division Multiplexing |
| CSP | Código de Seleção de Prestadora |

# *EQUIPAMENTO*

O AG561 é um roteador que possui somente função de Voz. Nesse documento estaremos descrevendo o procedimento para Ativação e Configuração de Voz, bem como mecanismos para verificações falhas no processamento de chamadas.

Abaixo temos as especificações técnicas do AG561:



Figura 1 - Roteador AG561

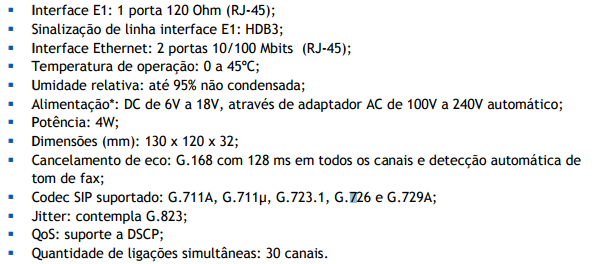


Figura 2 - Interface E1 R2 / ISDN

# *CONFIGURAÇÃO INICIAL*

Antes de iniciar configuração do serviço de voz do roteador, será necessário realizar:

* Atualização de software
* Configuração usuário padrão da Embratel
* Configuração da interface WAN para comunicação com o Backbone

## Atualização de Software

A atualização de software do AG561 é realizada através da interface web, onde o IP padrão para acesso é 192.168.1.10 e máscara 255.255.255.0.

A versão homologada e liberada é:

AG561-cli# system info

Board: AG561rev3

Firmware: AG561 - 5.49

Serial Number: 1023004219

* O firmware AG561-fw.zip está no link <ftp://10.14.185.228/arquivos/IOS/Aligera/AG561>
* Transferir para o laptop do técnico o arquivo já descompactado.

Para acessar o equipamento, conectar um cabo de rede na porta do Laptop e a outra ponta conectar na porta Ethernet 2 (AUX). Após isso configurar a interface de rede do computador com um IP na rede do roteador. Abaixo um exemplo de IP que poderá ser utilizado.

|  |  |
| --- | --- |
| IP da Interface LAN | 192.168.1.100 |
| Máscara | 255.255.255.0 |

Após configurado a interface de rede do Laptop, abrir um navegador (Ex: Chrome, Firefox, etc) e acessar o AG561 através do IP 192.168.1.10. Após entrar com esse IP, aparecerá a página abaixo:

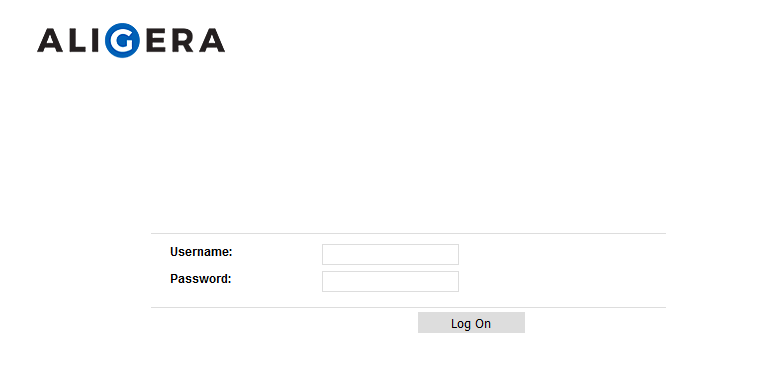


Figura 3 - Tela Inicial AG561

Para acessar o menu de atualização de software entre com o usuário **admin**  e senha **aligera.**

Após se logar no roteador, acessar a aba de firmware e prosseguir com a atualização:

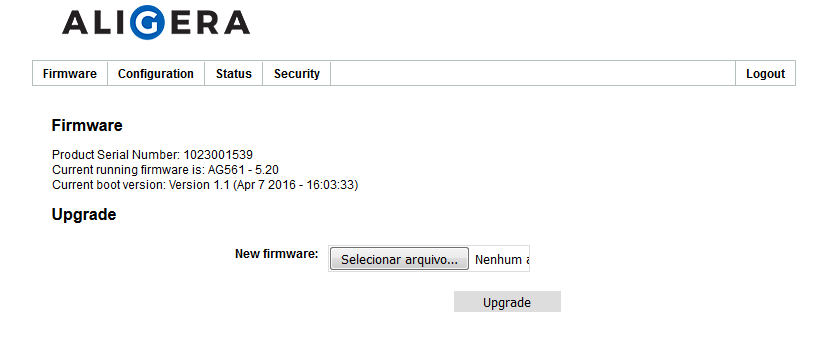


Figura 4 - Aba de atualização de Firmware

Para realizar a atualização de firmware, siga os seguintes passos:

1. Na seção Upgrade selecione uma nova imagem de firmware no botão Selecionar arquivo;
2. Clique no botão Upgrade.

Após ser enviada a nova imagem, o sistema realizará a gravação dela na memória. Esse processo dura cerca de 2 minutos e não pode ser interrompido em nenhuma circunstância. A interrupção do processo de atualização de firmware durante a gravação na memória pode causar a corrupção da imagem do sistema, danificando o equipamento. Após a gravação do novo firmware, o equipamento irá ser reiniciado automaticamente.

## Configuração de usuário

Após atualizado o roteador, deverá ser configurado o usuário padrão Embratel no equipamento. A configuração será realizada via telnet.

Através de um software de terminal de acesso, por exemplo Putty, acessar o AG561 via telnet através do IP 192.168.1.10. Entrar com o usuário **admin**  e senha **aligera.**

Executar as configurações abaixo:

AG561-cli# config login user <USUARIO\_EBT>

AG561-cli# config login user <USUARIO\_EBT> password

Changing password for EBT

New password: <SENHA\_EBT>

Retype password: <SENHA\_EBT>

AG561-cli#config apply

AG561-cli#config save

## Configuração da interface de UPLINK

Antes de iniciar a configuração da interface UPLINK, deverá realizar a conexão física entre o acesso e o roteador. Para isso, deverá conectar o cabo de rede do acesso na porta Ethernet 1 (SIP) do AG561.

Feito a conexão física, configurar a interface de UPLINK de acordo com o acesso. Isso devido a necessidade de marcação ou não de VLAN. Abaixo a configuração para os dois casos:

### Configuração com CVLAN:

AG561-cli#config network switch vlan\_mode enable

AG561-cli#config network switch cpu vlan\_default <CVLAN>

AG561-cli#config network switch cpu vlan\_allowed <CVLAN>

AG561-cli#config network switch port1 vlan\_allowed <CVLAN>

AG561-cli#config network switch port1 vlan\_default <CVLAN>

AG561-cli#config network switch port1 vlan\_policy insert

AG561-cli#config network ip type static

AG561-cli#config network ip address <IP\_WAN\_CLIENTE>

AG561-cli#config network ip netmask 255.255.255.252

AG561-cli#config network ip defaultgw <IP\_INTERFACE\_PE>

AG561-cli#config network mtu 1400

AG561-cli#config apply

AG561-cli#config save

### Configuração sem CVLAN:

AG561-cli#config network switch vlan\_mode disable

AG561-cli#config network ip type static

AG561-cli#config network ip address <IP\_WAN\_CLIENTE>

AG561-cli#config network ip netmask 255.255.255.252

AG561-cli#config network ip defaultgw <IP\_INTERFACE\_PE>

AG561-cli#config network mtu 1400

AG561-cli#config apply

AG561-cli#config save

Ao término da configuração realizar testes de Ping para o IP do PE para certificar que a conectividade está Ok.

# TOPOLOGIA

O teste de homologação foi baseado na topologia abaixo:

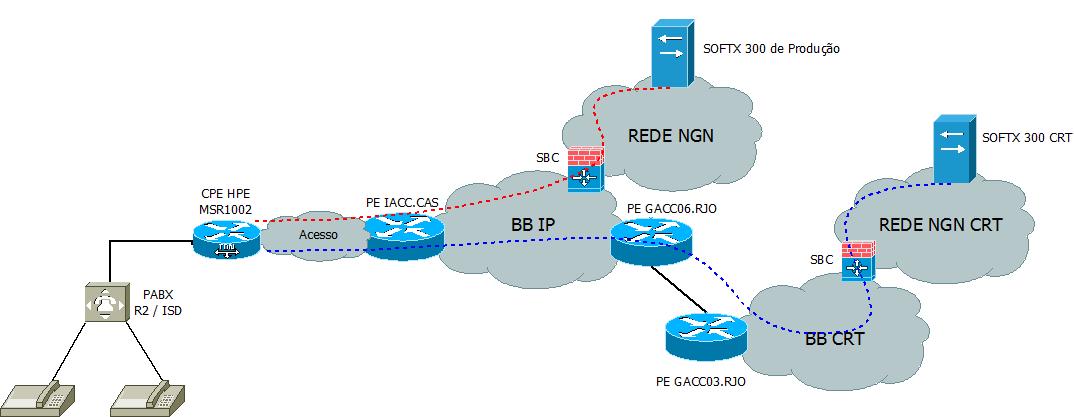


Figura 5 - Topologia de homologação de Voz

# CONFIGURAÇÃO DO SERVIÇO DE VOZ

Nos tópicos abaixo, serão apresentadas as configurações padrões utilizadas durante o processo de homologação do AG561 e que atendem aos serviços de voz utilizando PABX TDM.

Em alguns casos, podem ser realizadas configurações customizadas para atendimentos a cliente e que serão mostrados também nesse capítulo.

## Configuração para atendimento a R2

Abaixo segue a configuração aplicada no laboratório. Essa configuração servirá como base para ativação do serviço de Voz em Produção.

* **Configuração do E1 para sinalização R2:**

AG561-cli#

config tdm port1 crc disable

config tdm port1 signalling mfcr2

config tdm port1 timeslots 1-15,17-31

config tdm port1 keepalive\_host <IP\_INTERFACE\_PE>

config tdm port1 mfcr2 max\_ani 10

config tdm port1 mfcr2 max\_dnis 20

config tdm port1 mfcr2 get\_ani\_first yes

config tdm port1 mfcr2 reanswer\_timeout 90000

config apply

config save

* **Configuração do SIP:**

AG561-cli#

config sip prack yes

config sip tos\_sip 24

config sip tos\_rtp 46

config sip vad yes

config sip dtmf\_rtp\_pt 97

config sip peer trunk1 host <IP\_SIP\_ACESSO\_SBC>

config sip peer trunk1 port 5060

config sip peer trunk1 dtmfmode rfc2833

config sip peer trunk1 t38 yes

config sip peer trunk1 codecs g729 alaw

config sip peer trunk1 force180sdp yes

config apply

config save

* **Configuração do Plano de Encaminhamento:**

config dialplan rule sip\_trunk1\_default delete

config dialplan rule tdm\_group1\_default delete

* Plano de Encaminhamento para chamadas terminadas no PABX:

config dialplan rule from\_sip\_local source\_peer sip trunk1

config dialplan rule from\_sip\_local destination\_peer tdm group1

config dialplan rule from\_sip\_local called\_pattern 321106XX **🡪 (Número chave exemplo)**

config dialplan rule from\_sip\_local outgoing\_called {:-4} **🡪 (Envia MCDU para o PABX)**

config dialplan rule from\_sip\_a\_cobrar source\_peer sip trunk1

config dialplan rule from\_sip\_a\_cobrar destination\_peer tdm group1

config dialplan rule from\_sip\_a\_cobrar called\_pattern 9090321106XX **🡪 (Número chave exemplo)**

config dialplan rule from\_sip\_a\_cobrar outgoing\_called {:-4} **🡪 (Envia MCDU para o PABX)**

config dialplan rule from\_sip\_a\_cobrar\_ldn source\_peer sip trunk1

config dialplan rule from\_sip\_a\_cobrar\_ldn destination\_peer tdm group1

config dialplan rule from\_sip\_a\_cobrar\_ldn called\_pattern 902119321106XX

config dialplan rule from\_sip\_a\_cobrar\_ldn outgoing\_called {:-4}

* Plano de Encaminhamento para chamadas terminadas no PSTN:

config dialplan rule from\_tdm\_local\_8d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_1 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_2 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_3 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_1 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_2 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_3 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_1 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_2 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_3 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_1 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_2 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_3 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_internacional\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_1 called\_pattern 00X.

config dialplan rule from\_tdm\_internacional\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_2 called\_pattern 00X.

config dialplan rule from\_tdm\_internacional\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_3 called\_pattern 00X.

config dialplan rule from\_tdm\_0800\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_1 called\_pattern 0800X.

config dialplan rule from\_tdm\_0800\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_2 called\_pattern 0800X.

config dialplan rule from\_tdm\_0800\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_3 called\_pattern 0800X.

config dialplan rule from\_tdm\_0300\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_1 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0300\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_2 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0300\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_3 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0500\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_1 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0500\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_2 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0500\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_3 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0900\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_1 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_0900\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_2 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_0900\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_3 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_1 called\_pattern 1[0-8].

config dialplan rule from\_tdm\_serv\_pub\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_2 called\_pattern 1[0-8].

config dialplan rule from\_tdm\_serv\_pub\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_3 called\_pattern 1[0-8].

🡺 Configuração das manipulações do número de A enviado pelo PABX:

**Onde: (Os números de A são exemplos. Deve ser alterado para os números do cliente)**

**\_1 callerid\_pattern 06XX 🡪 CPE analisa que PABX enviou MCDU em A**

**\_1 outgoing\_callerid 3211{} 🡪 CPE após a análise, coloca PREFX+MCDU em A**

**\_2 callerid\_pattern 321106XX 🡪 CPE checa que o PABX enviou nº do ramal em A**

**\_2 outgoing\_callerid 3211{:-4} 🡪 CPE após analise, mantém o nº do ramal em A**

**\_3 callerid\_pattern 🡪 CPE checa que o PABX enviou nº de A fora da faixa**

**\_3 outgoing\_callerid 32110648 🡪 CPE após analise, coloca o n° do tronco chave em A**

config dialplan rule from\_tdm\_local\_8d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_local\_8d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_local\_8d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_local\_8d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_local\_8d\_3 callerid\_pattern

config dialplan rule from\_tdm\_local\_8d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_celular\_local\_9d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_celular\_local\_9d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_celular\_local\_9d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_celular\_local\_9d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_celular\_local\_9d\_3 callerid\_pattern

config dialplan rule from\_tdm\_celular\_local\_9d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_9d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_9d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_9d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_9d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_9d\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_9d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_internacional\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_internacional\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_internacional\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_internacional\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_internacional\_3 callerid\_pattern

config dialplan rule from\_tdm\_internacional\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0800\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0800\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0800\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0800\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0800\_3 callerid\_pattern

config dialplan rule from\_tdm\_0800\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0300\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0300\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0300\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0300\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0300\_3 callerid\_pattern

config dialplan rule from\_tdm\_0300\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0500\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0500\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0500\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0500\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0500\_3 callerid\_pattern

config dialplan rule from\_tdm\_0500\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0900\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0900\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0900\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0900\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0900\_3 callerid\_pattern

config dialplan rule from\_tdm\_0900\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 callerid\_pattern

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_serv\_pub\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_serv\_pub\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_serv\_pub\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_serv\_pub\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_serv\_pub\_3 callerid\_pattern

config dialplan rule from\_tdm\_serv\_pub\_3 outgoing\_callerid 32110648

## Configuração para atendimento a ISDN

Abaixo segue a configuração aplicada no laboratório para realização da homologação do protocolo ISDN interfuncionando com o SIP.

Essa configuração servirá como base para ativação do serviço de Voz em Produção.

* **Configuração do E1 para sinalização ISDN:**

AG561-cli#

config tdm port1 crc enable

config tdm port1 clock 0

config tdm port1 signalling isdn\_net

config tdm port1 timeslots 1-15,17-31

config tdm port1 isdn switchtype euroisdn

config tdm port1 isdn overlapdial no

config apply

config save

* **Configuração do SIP:**

AG561-cli#

config sip prack yes

config sip tos\_sip 24

config sip tos\_rtp 46

config sip vad yes

config sip dtmf\_rtp\_pt 97

config sip peer trunk1 host <IP\_SIP\_ACESSO\_SBC>

config sip peer trunk1 port 5060

config sip peer trunk1 dtmfmode rfc2833

config sip peer trunk1 t38 yes

config sip peer trunk1 codecs g729 alaw

config sip peer trunk1 force180sdp yes

config apply

config save

* **Configuração do Plano de Encaminhamento:**

config dialplan rule sip\_trunk1\_default delete

config dialplan rule tdm\_group1\_default delete

* Plano de Encaminhamento para chamadas terminadas no PABX:

config dialplan rule from\_sip\_local source\_peer sip trunk1

config dialplan rule from\_sip\_local destination\_peer tdm group1

config dialplan rule from\_sip\_local called\_pattern 321106XX **🡪 (Número chave exemplo)**

config dialplan rule from\_sip\_local outgoing\_called {:-4} **🡪 (Envia MCDU para o PABX)**

config dialplan rule from\_sip\_a\_cobrar source\_peer sip trunk1

config dialplan rule from\_sip\_a\_cobrar destination\_peer tdm group1

config dialplan rule from\_sip\_a\_cobrar called\_pattern 9090321106XX **🡪 (Número chave exemplo)**

config dialplan rule from\_sip\_a\_cobrar outgoing\_called {:-4} **🡪 (Envia MCDU para o PABX)**

config dialplan rule from\_sip\_a\_cobrar\_ldn source\_peer sip trunk1

config dialplan rule from\_sip\_a\_cobrar\_ldn destination\_peer tdm group1

config dialplan rule from\_sip\_a\_cobrar\_ldn called\_pattern 902119321106XX

config dialplan rule from\_sip\_a\_cobrar\_ldn outgoing\_called {:-4}

* Plano de Encaminhamento para chamadas terminadas no PSTN:

config dialplan rule from\_tdm\_local\_8d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_1 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_2 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_3 called\_pattern [2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 called\_pattern 9090[2-8]XXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_1 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_2 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_3 called\_pattern 9XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 called\_pattern 90909XXXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_1 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_2 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_3 called\_pattern 0ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_1 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_2 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_3 called\_pattern 0ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 called\_pattern 90ZXZZ[2-8]XXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 called\_pattern 90ZXZZ9XXXXXXXX

config dialplan rule from\_tdm\_internacional\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_1 called\_pattern 00Z.

config dialplan rule from\_tdm\_internacional\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_2 called\_pattern 00Z.

config dialplan rule from\_tdm\_internacional\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_internacional\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_internacional\_3 called\_pattern 00Z.

config dialplan rule from\_tdm\_0800\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_1 called\_pattern 0800X.

config dialplan rule from\_tdm\_0800\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_2 called\_pattern 0800X.

config dialplan rule from\_tdm\_0800\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0800\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0800\_3 called\_pattern 0800X.

config dialplan rule from\_tdm\_0300\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_1 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0300\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_2 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0300\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0300\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0300\_3 called\_pattern 0300XXXXXXX

config dialplan rule from\_tdm\_0500\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_1 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0500\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_2 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0500\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0500\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0500\_3 called\_pattern 0500XXXXXXX

config dialplan rule from\_tdm\_0900\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_1 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_0900\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_2 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_0900\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_0900\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_0900\_3 called\_pattern 0900XXXXXXX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 called\_pattern 19X

config dialplan rule from\_tdm\_serv\_pub\_1 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_1 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_1 called\_pattern 1[0-8].

config dialplan rule from\_tdm\_serv\_pub\_2 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_2 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_2 called\_pattern 1[0-8].

config dialplan rule from\_tdm\_serv\_pub\_3 source\_peer tdm group1

config dialplan rule from\_tdm\_serv\_pub\_3 destination\_peer sip trunk1

config dialplan rule from\_tdm\_serv\_pub\_3 called\_pattern 1[0-8].

🡺 Configuração das manipulações do número de A enviado pelo PABX:

**Onde: (Os números de A são exemplos. Deve ser alterado para os números do cliente)**

**\_1 callerid\_pattern 06XX 🡪 CPE analisa que PABX enviou MCDU em A**

**\_1 outgoing\_callerid 3211{} 🡪 CPE após a análise, coloca PREFX+MCDU em A**

**\_2 callerid\_pattern 321106XX 🡪 CPE checa que o PABX enviou nº do ramal em A**

**\_2 outgoing\_callerid 3211{:-4} 🡪 CPE após analise, mantém o nº do ramal em A**

**\_3 callerid\_pattern 🡪 CPE checa que o PABX enviou nº de A fora da faixa**

**\_3 outgoing\_callerid 32110648 🡪 CPE após analise, coloca o n° do tronco chave em A**

config dialplan rule from\_tdm\_local\_8d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_local\_8d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_local\_8d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_local\_8d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_local\_8d\_3 callerid\_pattern

config dialplan rule from\_tdm\_local\_8d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_local\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_local\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_celular\_local\_9d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_celular\_local\_9d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_celular\_local\_9d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_celular\_local\_9d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_celular\_local\_9d\_3 callerid\_pattern

config dialplan rule from\_tdm\_celular\_local\_9d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_celular\_local\_9d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_9d\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_9d\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_9d\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_9d\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_9d\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_9d\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_8d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 callerid\_pattern

config dialplan rule from\_tdm\_ldn\_9d\_cobrar\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_internacional\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_internacional\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_internacional\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_internacional\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_internacional\_3 callerid\_pattern

config dialplan rule from\_tdm\_internacional\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0800\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0800\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0800\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0800\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0800\_3 callerid\_pattern

config dialplan rule from\_tdm\_0800\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0300\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0300\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0300\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0300\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0300\_3 callerid\_pattern

config dialplan rule from\_tdm\_0300\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0500\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0500\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0500\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0500\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0500\_3 callerid\_pattern

config dialplan rule from\_tdm\_0500\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_0900\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_0900\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_0900\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_0900\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_0900\_3 callerid\_pattern

config dialplan rule from\_tdm\_0900\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_serv\_pub\_emerg\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 callerid\_pattern

config dialplan rule from\_tdm\_serv\_pub\_emerg\_3 outgoing\_callerid 32110648

config dialplan rule from\_tdm\_serv\_pub\_1 callerid\_pattern 06XX

config dialplan rule from\_tdm\_serv\_pub\_1 outgoing\_callerid 3211{}

config dialplan rule from\_tdm\_serv\_pub\_2 callerid\_pattern 321106XX

config dialplan rule from\_tdm\_serv\_pub\_2 outgoing\_callerid 3211{:-4}

config dialplan rule from\_tdm\_serv\_pub\_3 callerid\_pattern

config dialplan rule from\_tdm\_serv\_pub\_3 outgoing\_callerid 32110648

## Configuração de chamada a cobrar

* **Configuração de chamada a cobrar para sinalização R2:**

Logar no AG561 e executar os comandos abaixo

config dialplan rule from\_sip\_a\_cobrar mfcr2\_category collect\_call

config dialplan rule from\_sip\_a\_cobrar\_ldn mfcr2\_category collect\_call

config apply

config save

OBS: A **rule from\_sip\_a\_cobrar** e **from\_sip\_a\_cobrar\_ldn** são as regras utilizadas pelo AG561 para receber chamadas a cobrar. Assim o AG561 faz leitura do número de B que chega do Softx e verifica se o número começa com 9090 ou 90+CSP, caso sim ele envia para o PABX a mensagem II-8 (R2) informando que é uma chamada, e o PABX pode bloquear ou não essa chamada.

* **Configuração de chamada a cobrar para sinalização ISDN**

Logar no AG561 e executar os comandos abaixo:

config dialplan rule from\_sip\_a\_cobrar isdn\_reverse\_charge yes

config dialplan rule from\_sip\_a\_cobrar\_ldn isdn\_reverse\_charge yes

config apply

config save

OBS: A **rule from\_sip\_a\_cobrar** e **from\_sip\_a\_cobrar\_ldn** são as regras utilizadas pelo AG561 para receber chamadas a cobrar. Assim o AG561 faz leitura do número de B que chega do Softx e verifica se o número começa com 9090 ou 90+CSP, caso sim ele envia para o PABX a mensagem Reverse-Charge informando que é uma chamada a cobrar, e o PABX pode bloquear ou não essa chamada

## Configuração de tomadas de circuitos

* **Configuração de tomadas de circuitos para R2 e ISDN:**

As tomadas de circuitos podem acontecer na forma crescente ou decrescente. Por padrão, o AG561 vem configurado como tomada de circuito Crescente:

* + **Configuração de Circuitos na forma crescente:**

Executar o comando:

config tdm port1 hunt\_policy seq\_up

config apply

config save

OBS: Nessa configuração, o AG561 sempre vai alocar os canais na ordem crescente e sempre alocar o primeiro canal livre

* + **Configuração de Circuitos na forma decrescente:**

Executar o comando:

config tdm port1 hunt\_policy seq\_down

config apply

config save

OBS: Nessa configuração, o AG561 sempre vai alocar os canais na ordem decrescente e sempre alocar o primeiro canal livre

## Configuração do formato de envio e recepção de digítos na sinalização ISDN

Na sinalização ISDN, podemos ter duas formas de enviar ou receber dígitos dos números B.

* Elas podem ser na forma Enbloc, ou seja, todos os dígitos de B serão enviados ou recebidos na mensagem SETUP
* Elas podem ser na forma Overlap, ou seja, uma parte dos Dígitos de B estarão na mensagem SETUP e o restante dos dígitos virão na mensagem INFO.

O AG561 é sempre configurado para trabalhar no modo Enbloc.

Porém, em algumas situações o PABX somente trabalha no modo Overlap. Abaixo, segue a programação do AG561 para enviar chamadas ao PABX no modo Overlap.

Para configurar o modo overlap, executar os comandos abaixo:

config tdm port1 isdn overlapdial yes

config apply

config save

# Anexos

## Documentação

Nesse capítulo estará os links para acesso a documentação técnica da Aligera.

### Manual de Configuração

<http://2k3rjowss03/sites/Capex/Documentos%20Compartilhados/Integração%20de%20Produtos/01%20-%20Tutoriais%20Técnicos/2%20-%20Materiais%20de%20Treinamento/Aligera/MA-013%20-%20AG561%20Manual%20de%20Configuração%20CLI-20170303.pdf>

### Manual do Usuário e Guia do Usuário

<http://2k3rjowss03/sites/Capex/Documentos%20Compartilhados/Integração%20de%20Produtos/01%20-%20Tutoriais%20Técnicos/2%20-%20Materiais%20de%20Treinamento/Aligera/MA-005%20-%20AG561%20Manual%20do%20Usuario%20e%20Guia%20de%20Instalacao-20160816.pdf>

## Comandos para exibir configuração e para habilitar debug

### Comando para exibição de configuração

Abaixo alguns exemplos de comandos de exibição de configuração do AG561.

* **Exibição de configuração geral**

Para exibir todas as configurações do AG561, executar o comando abaixo:

* + config show

Essa configuração mostrará todos os parâmetros configurados no equipamento

* **Exibição de configuração espefícicas**

O AG561 poderá exibir configurações específicas, além de mostrar status dos canais TDM, sincronismo, versão do equipamento, etc. Por exemplo, ele poderá exibir somente as configurações de Rede, TDM, SIP, Dialplan, etc. Abaixo alguns exemplos:

|  |  |
| --- | --- |
| **Comandos** | **Informação** |
| config network show | Exibirá a configuração de rede |
| config tdm show | Exibirá a configuração do link TDM |
| config sip show | Exibirá a configuração dos parâmetros SIPs |
| config dialplan show | Exibirá a configuração do plano de discagem |
| status network | Exibirá as informações de Rede |
| status tdm | Exibirá o status dos canais de Voz |
| status cpu | Exibirá o status da CPU |
| system info | Exibirá a versão de software atual |

### Comandos para debugs

Abaixo será mostrado como ativar os Debugs SIP, R2 e ISDN

* **Debug SIP**

Para habilitar o debug no SIP, executar os comandos abaixo:

AG561-cli# debug

AG561-debug> core set debug 5

AG561-debug> core set verbose 5

AG561-debug> sip set debug on

Para finalizar o debug, basta executar o comando exit e voltará ao menu de comandos

AG561-debug> exit

AG561-cli#

* **Debug R2**

Para habilitar o debug no SIP, executar os comandos abaixo:

AG561-cli# debug

AG561-debug> core set debug 5

AG561-debug> core set verbose 5

AG561-debug> mfcr2 set debug all

Para finalizar o debug, basta executar o comando exit e voltará ao menu de comandos

AG561-debug> exit

AG561-cli#

* **Debug ISDN**

Para habilitar o debug no SIP, executar os comandos abaixo:

AG561-cli# debug

AG561-debug> core set debug 5

AG561-debug> core set verbose 5

AG561-debug> pri set debug on span 1

Para finalizar o debug, basta executar o comando exit e voltará ao menu de comandos

AG561-debug> exit

AG561-cli#

É possível executar os debugs com SIP e R2 ao mesmo tempo, assim como é possível executar com SIP e ISDN também. Basta aplicar os comandos de debug relativo a sinalização.

# *HISTÓRICO DE REVISÕES*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Revisão** | **Data** | **Motivo** | **Responsável** | **Ramal / Email** |
| 00 | 23/06/2017 | Edição Inicial | Sidney Couto | 5196270 / scouto@ |
| 01 | 19/06/2018 | Alteração da versão do firmware para inclusão do parâmetro 180 com SDP | Sidney Couto | 5196270 / scouto@ |
| 02 | 28/06/2018 | Implementação de break nos comandos SHOW | Sidney Couto | 5196270 / scouto@ |
| 03 | 25/06/2019 | Alteração da versão de firmware | Sidney Couto | 5196270 / sidney.inatel@claro.com.br |

# *APROVAÇÕES*

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Responsáveis** | **Áreas** | **Assinaturas** |
| ***VALIDADO POR:*** |  |  |  |
| ***APROVADO POR:*** |  |  |  |