

Redes Sem Fio



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WIRELESS = WIFI ?

WIRELESS = Qualquer comunicação SEM FIO. Ex: Telefone sem fio, infravermelho, radio amador, bluetooth, etc.

WIFI = Marca licenciada por uma união de fabricantes de hardware, que obedece o padrão IEEE 802.11 (a,b,g,n)



Componentes de uma Rede Wireless



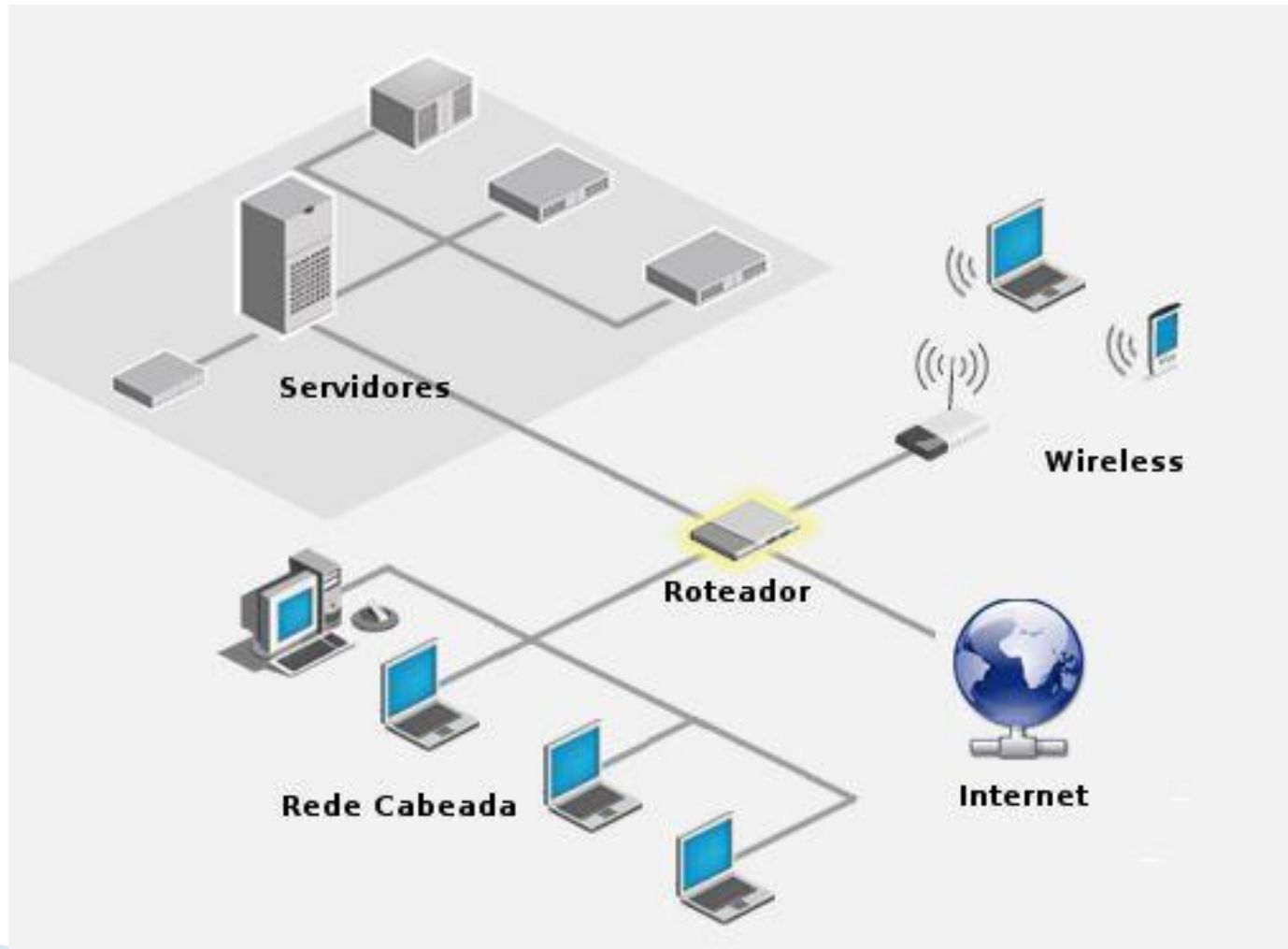
Access Point (AP)

Placas de Rede:

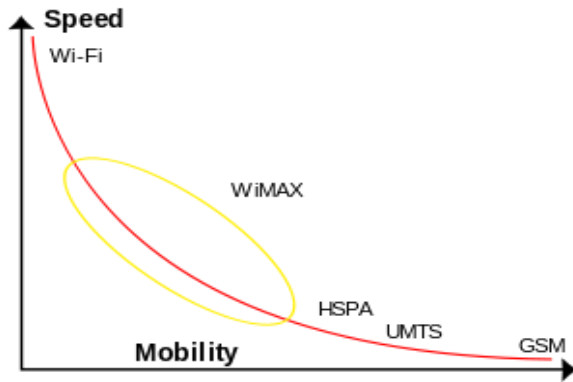
- USB
- PCI
- MiniPci
- PCCard



Cenário corporativo



Abrangência – Wireless



WPAN

WLAN

WMAN

WWAN

Comparativo – Tecnologias

	WIFI (A)	WIFI (B)	WIFI (G)	WIFI (N)	WIMAX
MODO	802.11a	802.11b	802.11g	802.11n	802.16
Frequência (GHz)	5	2.4	2.4	2.4	2.66
Velocidade (Mbps)	54	11	54	300*	80
Alcance (teórico)	50m	50m	80m	100m	20Km
* 65 – 600 Mbps					

Antenas



OMNI

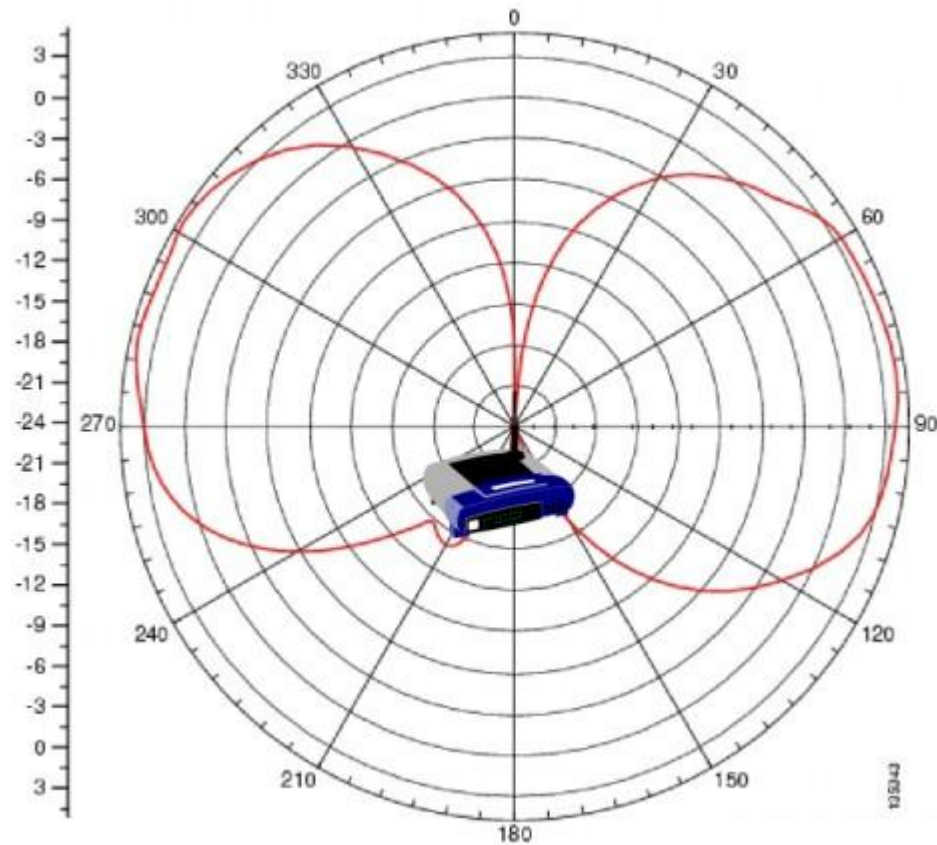


SETORIAIS

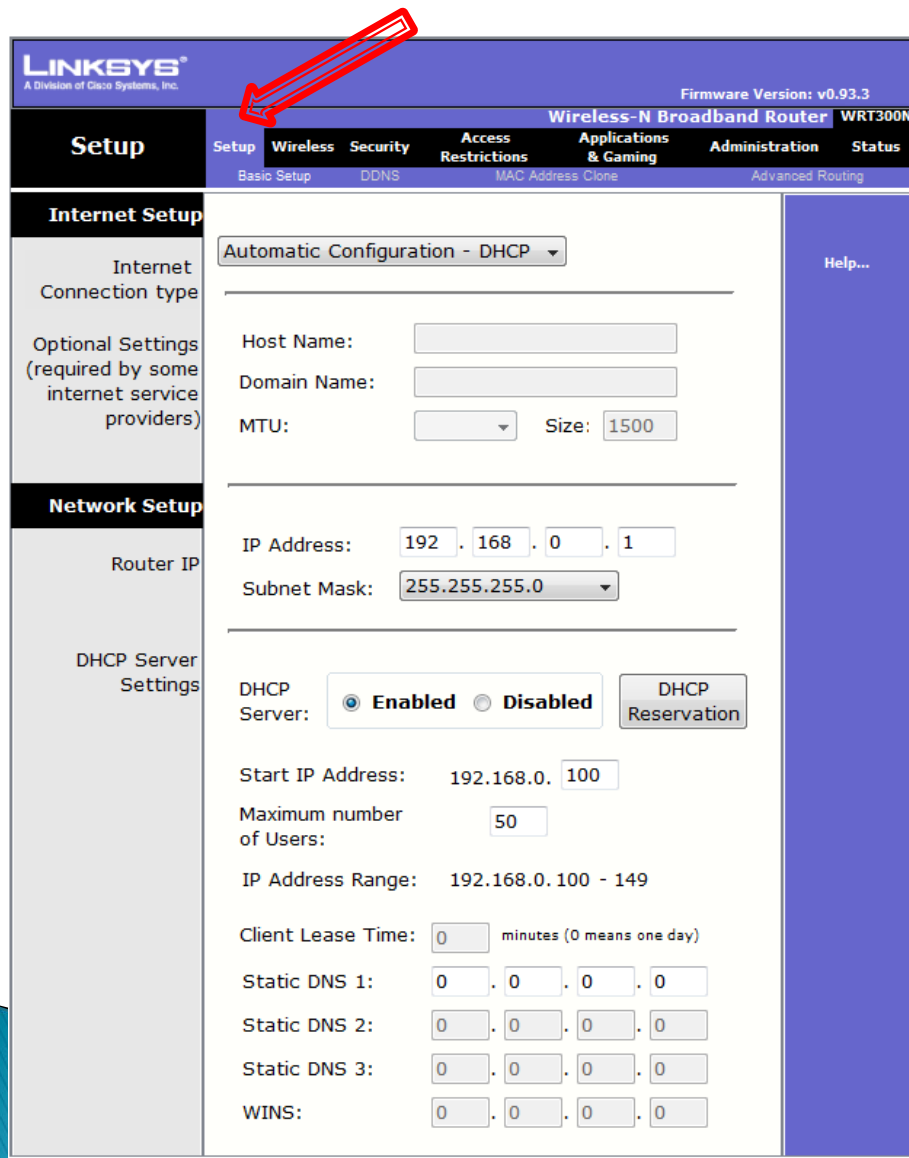


DIRECIONAL

Propagação do sinal (omni)



CONFIGURAÇÃO – SETUP



LINKSYS
A Division of Cisco Systems, Inc.

Firmware Version: v0.93.3

Wireless-N Broadband Router WRT300N

Setup | Wireless | Security | Access Restrictions | Applications & Gaming | Administration | Status

Basic Setup | DDNS | MAC Address Clone | Advanced Routing

Internet Setup

Internet Connection type: Automatic Configuration - DHCP

Optional Settings (required by some internet service providers)

Host Name:

Domain Name:

MTU: Size: 1500

Network Setup

Router IP

IP Address: 192 . 168 . 0 . 1

Subnet Mask: 255.255.255.0

DHCP Server: ☒ Enabled ☐ Disabled

Start IP Address: 192.168.0. 100

Maximum number of Users: 50

IP Address Range: 192.168.0. 100 - 149

Client Lease Time: 0 minutes (0 means one day)

Static DNS 1: 0 . 0 . 0 . 0

Static DNS 2: 0 . 0 . 0 . 0

Static DNS 3: 0 . 0 . 0 . 0

WINS: 0 . 0 . 0 . 0

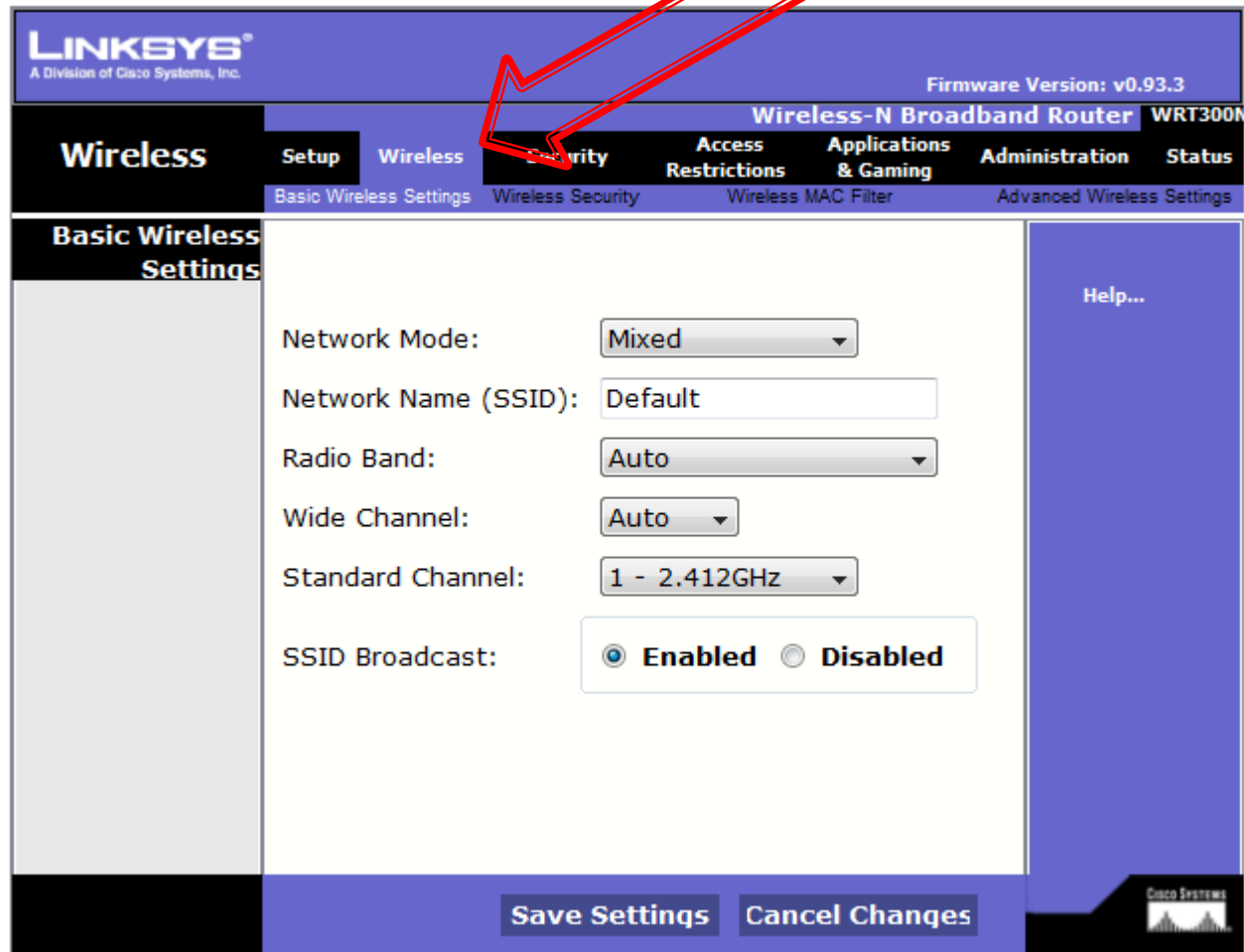
Forma de conexão com internet

Endereço IP do Access Point

O Serviço DHCP será habilitado ?
(normalmente sim)

Indicação do Servidor de DNS
(se necessário)

CONFIGURAÇÃO - WIRELESS



LINKSYS
A Division of Cisco Systems, Inc.

Firmware Version: v0.93.3

Wireless-N Broadband Router WRT300N

Wireless Setup Wireless **Security** Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Basic Wireless Settings

Network Mode: Mixed

Network Name (SSID): Default

Radio Band: Auto

Wide Channel: Auto

Standard Channel: 1 - 2.412GHz

SSID Broadcast: ☒ Enabled ☐ Disabled

Help...

Save Settings Cancel Changes

CISCO SYSTEMS

CONFIGURAÇÃO – WIRELESS

The screenshot shows the Linksys configuration interface for a Wireless-N Broadband Router (Firmware Version: v0.93.3). The 'Wireless' tab is selected, and the 'Basic Wireless Settings' sub-tab is active. The 'Network Mode' dropdown menu is open, showing options: Mixed, BG-Mixed, Wireless-G Only, Wireless-B Only, Wireless-N Only, and Disabled. The 'Standard Channel' is set to '1 - 2.412GHz'. The 'SSID Broadcast' is set to 'Enabled'. A red arrow points to the 'Network Mode' dropdown menu.

LINKSYS®
A Division of Cisco Systems, Inc.

Firmware Version: v0.93.3

Wireless-N Broadband Router

Wireless

Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Basic Wireless Settings

Network Mode: Mixed

Network Name (SSID):

Radio Band:

Wide Channel:

Standard Channel: 1 - 2.412GHz

SSID Broadcast: ☒ Enabled ☐ Disabled

Save Settings Cancel Changes

- ▶ Modos:
- ▶ B – 11Mbps
- ▶ G – 54 Mbps
- ▶ N – 150Mbps(*)

▶ (*) Pode variar de 65 a 600 Mbps

CONFIGURAÇÃO – WIRELESS

LINKSYS
A Division of Cisco Systems, Inc.

Firmware Version: v0.93.3

Wireless-N Broadband Router WRT300N

Wireless | Setup | Wireless | Security | Access Restrictions | Applications & Gaming | Administration | Status

Basic Wireless Settings | Wireless Security | Wireless MAC Filter | Advanced Wireless Settings

Basic Wireless Settings

Network Mode:

Network Name (SSID):

Radio Band:

Wide Channel:

Standard Channel:

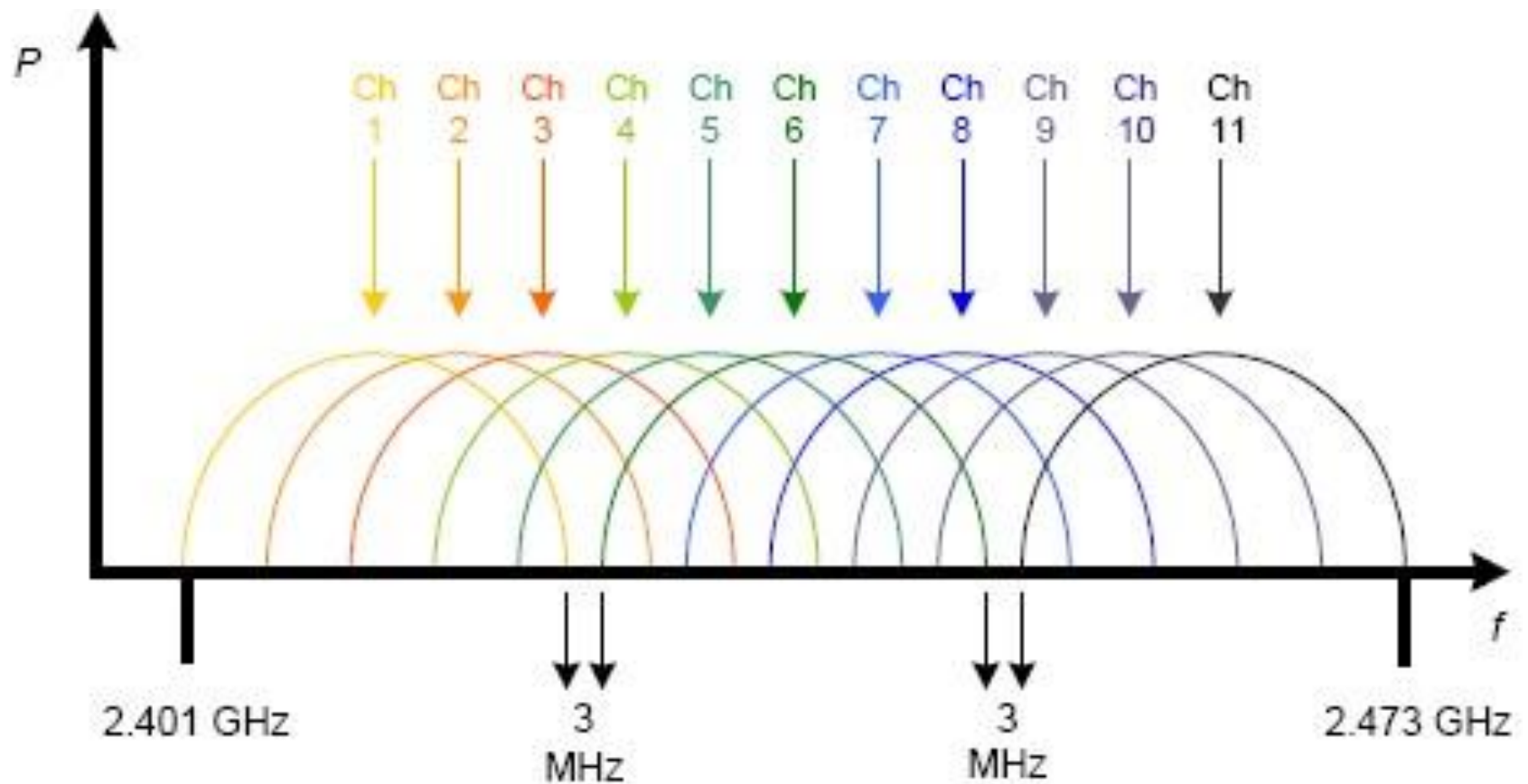
SSID Broadcast: ☒ **Enabled** ☐ **Disabled**

Save Settings **Cancel Changes**

Cisco Systems

- ▶ **SSID:** Nome que será visualizado pelo usuário.
- ▶ **Canal:** Escolher canal “vago” de 1 a 11
- ▶ **SSID Broadcast:** Habilitar para que todos vejam o nome da rede ?

Frequência dos canais WIFI

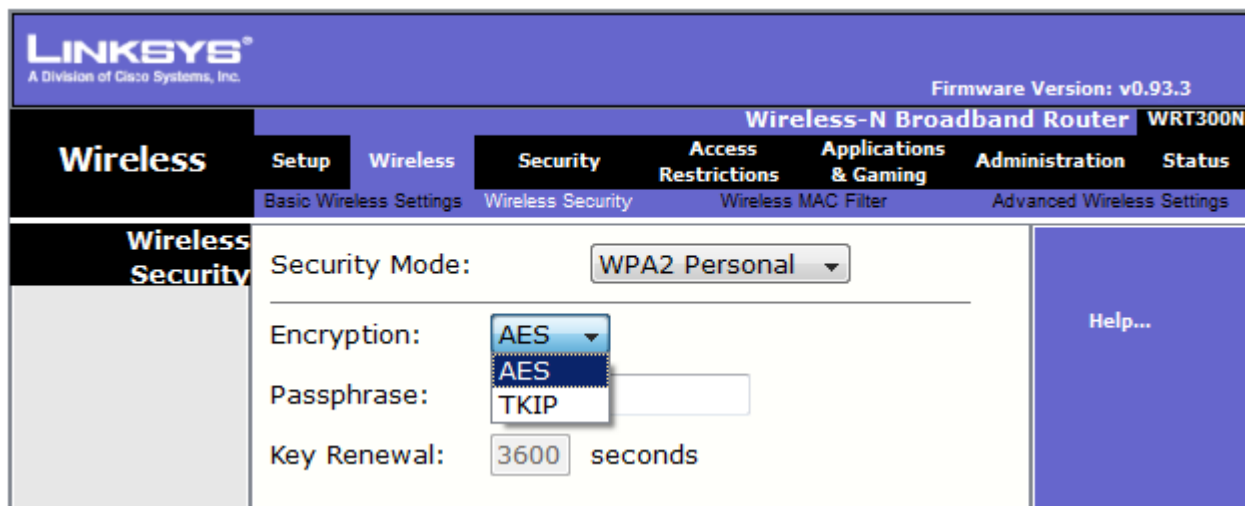


CONFIGURAÇÃO – WIRELESS



- ▶ Segurança:
 - WEP – Menos segura
 - WPA – Mais segura

CONFIGURAÇÃO – WIRELESS



- ▶ **Criptografia:**
 - TKIP – Menos seguro (maior compatibilidade com equipamentos antigos)
 - AES – Mais seguro
- ▶ **Chave Compartilhada:** de 8 a 63 caracteres de comprimento

CONFIGURAÇÃO – WIRELESS

► Segurança – Filtro MAC

The screenshot shows the Linksys WRT300N configuration interface. The top navigation bar includes 'Wireless', 'Setup', 'Wireless', 'Security', 'Access Restrictions', 'Applications & Gaming', 'Administration', and 'Status'. The 'Wireless' section is expanded, showing 'Basic Wireless Settings', 'Wireless Security', 'Wireless MAC Filter', and 'Advanced Wireless Settings'. The 'Wireless MAC Filter' page has a sidebar with 'Wireless MAC Filter', 'Access Resolution', and 'MAC Address filter list'. The main content area has a 'Wireless Client List' button and a table of MAC addresses. The 'Wireless Client List' button is highlighted. The table has two columns for MAC addresses, labeled MAC 01 through MAC 29. The 'Wireless Client List' button is highlighted. The 'Wireless Client List' button is highlighted.

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A Division of Cisco Systems, Inc.

Firmware Version: v0.93.3

Wireless-N Broadband Router WRT300N

Wireless Setup Wireless Security Access Restrictions Applications & Gaming Administration Status

Basic Wireless Settings Wireless Security Wireless MAC Filter Advanced Wireless Settings

Wireless MAC Filter

Enabled Disabled

Prevent PCs listed below from accessing the wireless network

Permit PCs listed below to access wireless network

Wireless Client List

MAC 01:	00:00:00:00:00:00	MAC 26:	00:00:00:00:00:00
MAC 02:	00:00:00:00:00:00	MAC 27:	00:00:00:00:00:00
MAC 03:	00:00:00:00:00:00	MAC 28:	00:00:00:00:00:00
MAC 04:	00:00:00:00:00:00	MAC 29:	00:00:00:00:00:00

Help...

CONEXÕES

