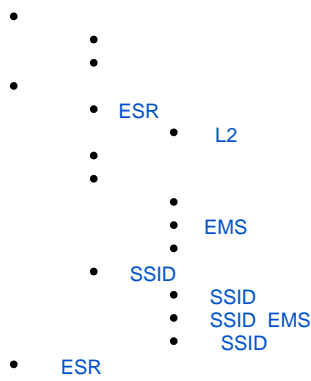


ESR - QoS /SSID SSID



ESR 1.11.4 1.19 SoftWLC /SSID SSID . () . Eltex-EMS (EMS) Eltex-Wi-Fi-cab (,), ESR Eltex-PCRF (PCRF).

L3 (ESR wireless-controller " ") ESR SoftGRE. BRAS.

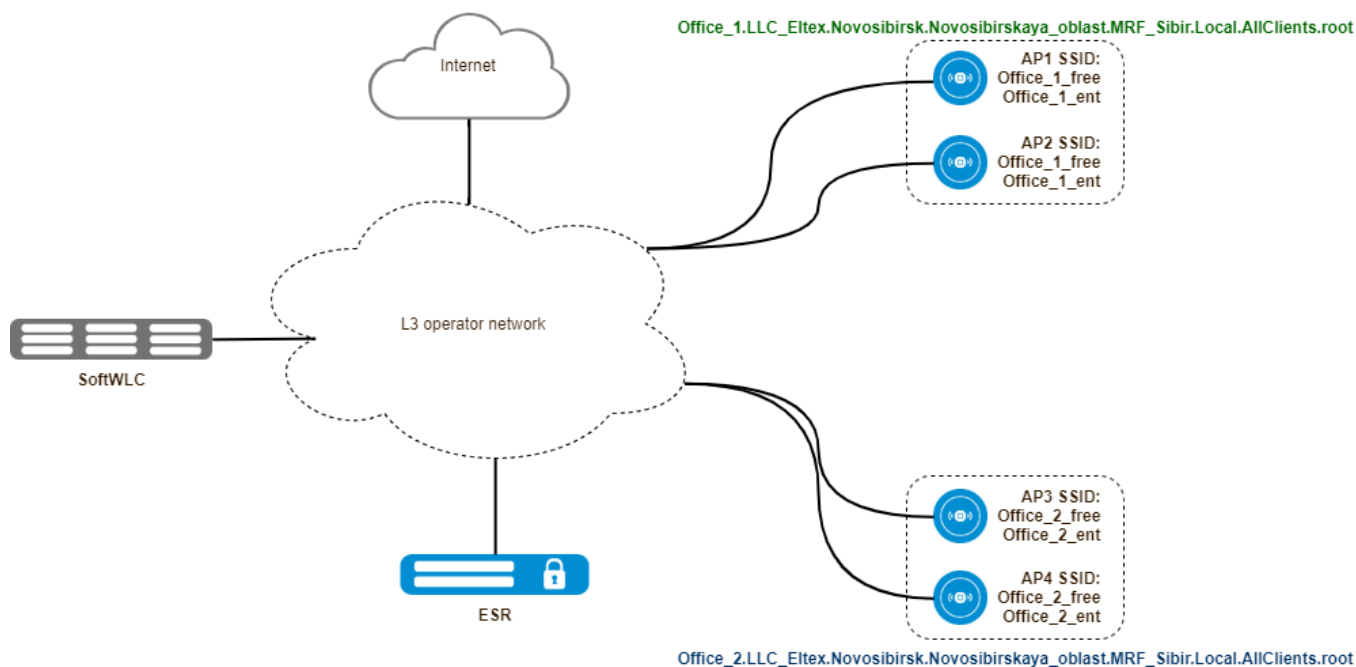
L2 BRAS (BRAS. L2 Wi-Fi -).

(/SSID), down/up Wi-Fi. , Wi-Fi . SSID, SSID.

:

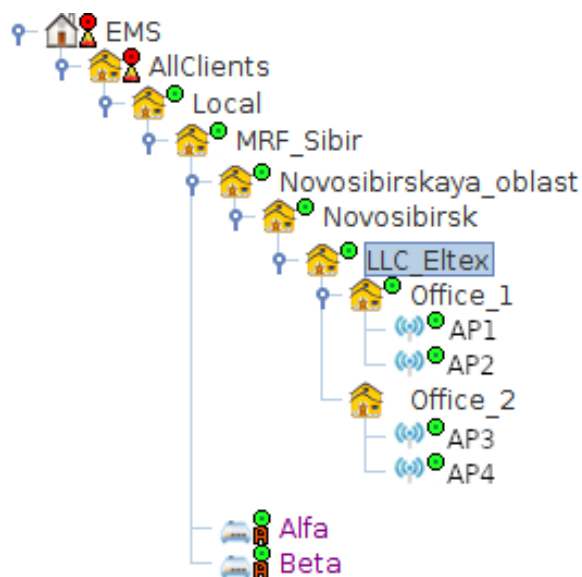
- "" - , , , SSID, ;
- "SSID" - SoftWLC SSID, ;
- "" - ;
- "" - ;
- "Average" - ;
- "Peak" - , ;
- "Down" - Wi-Fi;
- "Up" - Wi-Fi ;
- "Priority" "" - SSID, SoftWLC, 0 7;
- "" - priority SSID.

, . 1 :



. 1.

"Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root" "Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root", . SSID. , 2. , Eltex-EMS:

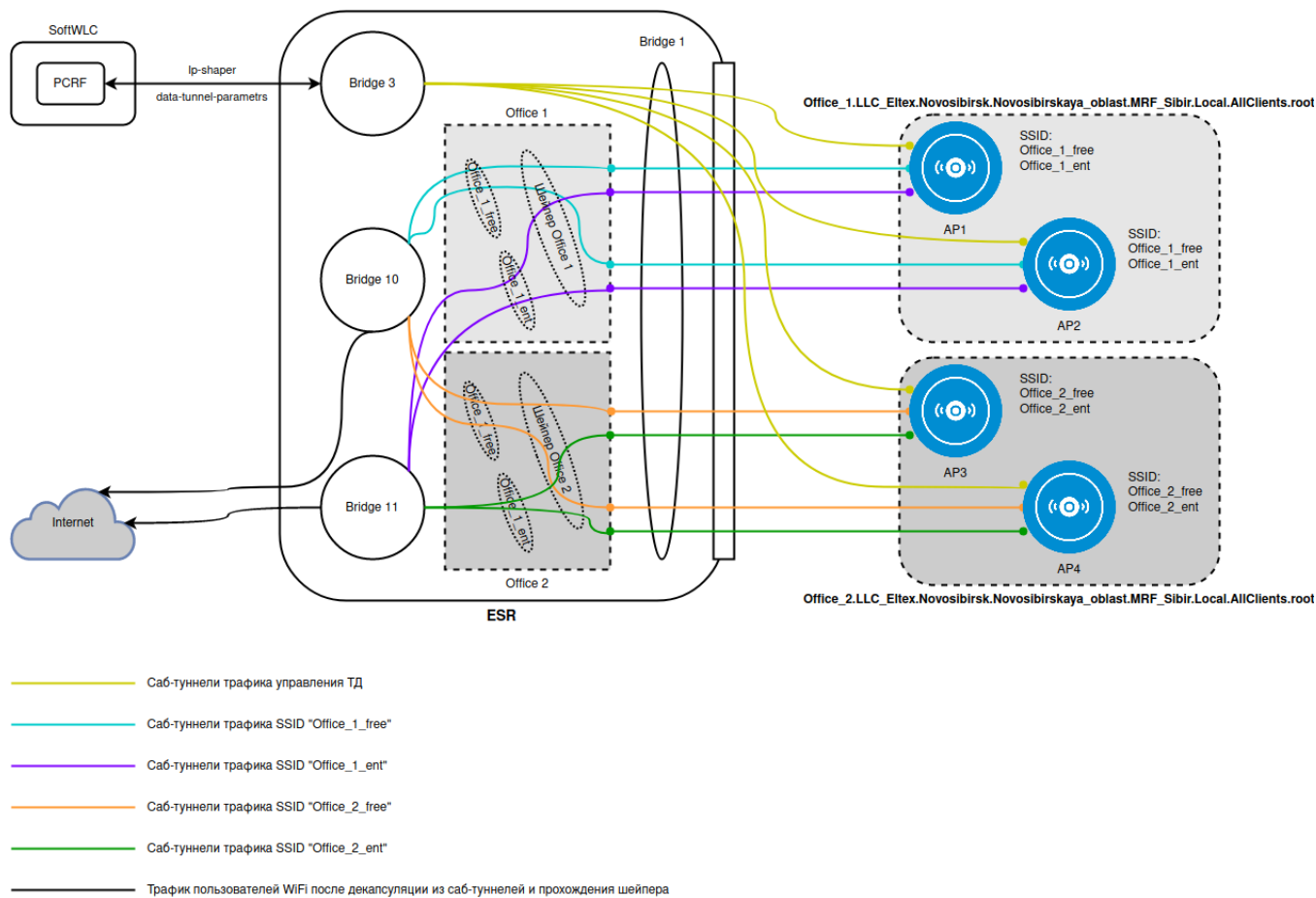


. 2.

ESR. EMS . ESR PCRF. /SSID ESR :

- L3 - L3 domain-update.
- L2 BRAS SSID domain-update.

, . 3. ESR:



. 3.

1) , ESR ip-shaper - , (- ESR wireless-controller " ").

2) SSID .

3) , SSID.

4) EMS update-domain ESR, , .

SSID down/up. . 3 . , , SSID Wi-Fi.

1 :

/SSID	Average up	Peak up	Average down	Peak down	Priority
Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root	9000	12000	20000	30000	n / a
Office_1_free	2000	9000	7000	25000	0
Office_1_ent	7000	12000	13000	30000	1
Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root	10000	15000	25000	40000	n/a
Office_2_free	3000	11000	10000	30000	0
Office_2_ent	7000	15000	15000	40000	1

1.

ESR - software hardware:

- Software : ESR-10/20/100/200/1000.
- Hardware , BC2: ESR-1200/1500/1700.

Software Wi-Fi (-) - , Wi-Fi (-). (port channel). .

Hardware .

 , ESR, , SoftWLC. CoS DSCP Wi-Fi . , SoftWLC.

ESR 1 SoftWLC. , - .

ESR EMS [ESR wireless-controller " "](#) , .

ESR

ESR hardware :

```
ip firewall sessions classification enable

interface service-port 1
  service-policy dynamic
exit
```

ESR software :

```
ip firewall sessions classification enable
```

Wi-Fi.


(gi1/0/1):

```
interface gigabitethernet 1/0/1
  service-policy dynamic all
exit
```

- Wi-Fi (gi1/0/1), (gi1/0/2):

```
interface gigabitethernet 1/0/1
  service-policy dynamic upstream
exit

interface gigabitethernet 1/0/2
  service-policy dynamic downstream
exit
```

 !

software - , ESR.

ESR . SoftWLC. ESR .

 !

, ESR, software , [ESR wireless-controller " "](#) . . , c VRRP+BGP.

L2

L2 BRAS. [BRAS. L2 Wi-Fi -](#) .

:

- vlan Wi-Fi "Bridge";
- Vlan - (- "bridge-group <N>").

SSID, -. SoftWLC .

" (. 4):

Статистика Hotspot

Статистика Enterprise

Статистика по домену

Сервисы и тарифы

Пользователи Wi-Fi

Точки доступа

Беспроводные сети

Журнал событий

Операции по расписанию

Отчеты

Конструктор порталов

Рекламная платформа

Настройки

Настройки PCRF

Справка

Система

Дерево доменов

Системные пользователи

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Серверные адреса

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Обратная связь от клиентов B2B

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Заголовок приложения

Личный кабинет платформы Wi-Fi

Язык интерфейса и системных сообщений

ru_RU

Количество неверных попыток ввода логина и пароля оператора, после которых будет произведена временная блокировка доступа по IP

10

Регулярное выражение для валидации номера телефона

^(79)(0-9){9}\$

☐ Единый домен сети

Время показа всплывающих сообщений, в сек.

2

Максимальное время хранения записей в Журнале событий, в неделях

2

☒ Настройка шейперов в "Дереве доменов"

☒ Настройка CORM-2 в "Дереве доменов"

☐ Автоматическая активация ваучера при создании

. 4.

" " " " " " .

EMS .

" " " " (. 5):

Статистика Hotspot

Статистика Enterprise

Статистика по домену

Сервисы и тарифы

Пользователи Wi-Fi

Точки доступа

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Дерево доменов

Системные пользователи

Системные роли

Серверные адреса

RADIUS клиенты

COPM-2

Обновить

Добавить

Редактировать

Удалить

Экспорт

Дерево доменов

Название	Описание	Полный путь	Тип домена	Редактировать шейпер	Сумма
root		root	both		
AllClients		AllClients.root	both		
Ap		Ap.AllClients.root	both		
Federal		Federal.AllClients.root	both		
Interop		Interop.AllClients.root	both		
Local		Local.AllClients.root	both		
14_Yakutiya_Republic		14_Yakutiya_Republic.Local.AllClients	both		
MRF_Sibir		MRF_Sibir.Local.AllClients.root	both		
Irkutskaya_Oblast		Irkutskaya_Oblast.MRF_Sibir.Local.AllClients	both		
Novosibirskaya_oblast		Novosibirskaya_oblast.MRF_Sibir.Local.AllClients	both		
Novosibirsk		Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients	both		
LLC_Eltex		LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients	both		
Office_1		Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients	both		
Office_2		Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients	both		

. 5.

(. 5 "Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root")
(. 6), , 1:

Настройки shaper'ов для "Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root"

Домен shaper'a

Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root

Average upstream bandwidth, Kbps

9000 ?

Peak upstream bandwidth, Kbps

12000 ?

Average downstream bandwidth, Kbps

20000 ?

Peak downstream bandwidth, Kbps

30000 ?

Shaper'a на SSID

Редактировать

Удалить

Shaper'a на SSID

	SSID	SSID domain	Average up, Kb...	Peak up, Kb...	Average down, Kb...	Peak down, Kb...
<input type="checkbox"/>	Office_1_ent	Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local...	2000	9000	7000	25000
<input type="checkbox"/>	Office_1_free	Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local...	7000	12000	13000	30000

Сохранить

Отменить

Очистить все

. 6.

"" ESR PCRF "Domain update" .



SSID, " " .  SSID, . , SSID, SSID .

"Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root".



" " , (. 7):

Суммарный шапер'a для 'Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root'

Домен шапер'a

Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root

Average upstream bandwidth, Kbps

10000 ?

Peak upstream bandwidth, Kbps

15000 ?

Average downstream bandwidth, Kbps

25000 ?

Peak downstream bandwidth, Kbps

40000 ?

Шапер'a на SSID

SSID	SSID domain	Average up, Kbps	Peak up, Kbps	Average do...	Peak down, Kbps	VLAN-ID	VLAN priority	Bridge, Loca...	Switch Community
Office_2_free	Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root	7000	15000	15000	40000	10	0	data10	false
Office_2_ent	Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root	3000	11000	10000	30000	11	0	data11	false

. 7.

. 7 VLAN, Priority, Location switch-community (/).

EMS

EMS " " " " " (. 8):

Домен	Описание	Макс. пользователей ...	Тип домена	Регион	Часовой пояс	Внешний
root	-	-	both	-	-	-
AllClients	-	-	both	-	-	-
Ap	-	-	both	-	-	-
Federal	-	-	both	-	-	-
Interop	-	-	both	-	-	-
Local	-	-	both	-	-	-
14_Yakutiya_Republic	-	-	both	-	(+09:00) Asia/Yakutsk	-
MRF_Sibir	-	-	both	-	-	-
Irkutskaya_Oblast	-	-	both	38	(+08:00) Asia/Irkutsk	-
Novosibirskaya_oblast	-	-	both	54	-	-
Novosibirsk	-	-	both	-	-	-
LLC_Eltex	-	-	both	54	(+07:00) Asia/Novosibirsk	-
Office_1	-	-	both	54	(+07:00) Asia/Novosibirsk	-
Office_2	-	-	both	54	(+07:00) Asia/Novosibirsk	-

. 8.

(. 8 "Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root"), .

(. 9), , 1:

Shaper для Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root:






Average upstream bandwidth, kbps

Peak upstream bandwidth, kbps




Average downstream bandwidth, kbps

Peak downstream bandwidth, kbps

SSID Shaper:

     Экспорт

SSID	Average upstream ba...	Peak upstream band...	Average downstream ...	Peak downstream ba...
Office_1_ent	2000	9000	7000	25000
Office_1_free	7000	12000	13000	30000

 Принять  Отменить  Очистить все

. 9.



SSID :

Average upstream bandwidth, kbps

Peak upstream bandwidth, kbps

Average downstream bandwidth, kbps

Peak downstream bandwidth, kbps

 Принять  Отменить

. 10.

SSID (. 10 SSID Office_1_1ent). SSID. "" (. 9). ESR PCRF "Domain update" .

(. 8) . (. 11):

Shaper для Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root:


Average upstream bandwidth, kbps

Peak upstream bandwidth, kbps


Average downstream bandwidth, kbps

Peak downstream bandwidth, kbps

SSID Shapers:

 Экспорт

SSID	Average u...	Peak upstr...	Average d...	Peak down...	VLAN ID	VLAN priority	Bridge, Loc...	Switch Co...
Office_1_ent	2000	9000	7000	25000	11	0	data11	<input type="checkbox"/>
Office_1_free	7000	12000	13000	30000	10	0	data10	<input type="checkbox"/>

 Закрыть

. 11.

. 11 VLAN, Priority, Location switch-community (/).

(. 9)  - ESR .

SSID .  SSID .

:

```
1. /;
2. 64 10000000;
3. peak , average;
4. - ( , SSID , );
5. average peak;
6. peak - average;
7. down up;
8. SSID, ;
9. average SSID average ;
10. peak SSID peak (.. SSID peak , );
11. average SSID - average average SSID (: average up 10000, SSID SSID average up 5000). , average SSID 64;
12. average, average SSID, SSID - average, average SSID, SSID, average . , average SSID 64;
13. peak , SSID - peak SSID, peak (up down).
```

SSID

SSID EMS . SSID "0". - 0, 7.

SSID

" " (. 12):

Статистика

Статистика проводим...

Статистика SMS

Статистика Hotspot

Статистика Enterprise

Статистика по домену

Сервисы и тарифы

Пользователи Wi-Fi

Точки доступа

Беспроводные сети

Беспроводные сети

Фильтр: Office_1_ent *root Обновить Очистить Экспорт

Редактировать Разорвать сессии

Имя	Домен	Описание	Портальная авторизация	Режим безопасности	Тип	Статус SSID	Статус VAP
Office_1_ent	Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local...		false	WPA Enterprise	Enterprise	В работе	Включена

. 12.

SSID, (. 12 Office_1_ent) "" (. 13):

Редактировать : Office_1_ent

Имя

Office_1_ent

?

Описание

?

Домен *

Office_1.LLC_Eltex.Novosi

Режим безопасности

WPA Enterprise

VLAN Priority

1

0

?

1

?

2

3

4

5

6

7

Сохранить

Отменить

Изменять пароли по расписанию

. 13.

("1") "" ESR PCRF "Domain update" (, SSID , ESR,).

SSID "", " " , " " "VILAN priority"(. 14):

Суммарный shaper для 'Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root'

Домен shaper'a

Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root

Average upstream bandwidth, Kbps

9000

?

Peak upstream bandwidth, Kbps

12000

?

Average downstream bandwidth, Kbps

20000

?

Peak downstream bandwidth, Kbps

30000

?

Shaper'a на SSID

	Average up, Kb...	Peak up, Kb...	Average down, Kbps	Peak down, Kbps	VLAN-ID	VLAN priori...	Bridge, Location	Switch C
st.MRF_Sibir.Local.AllClients.ro...	2000	9000	7000	25000	11	1	data11	false
st.MRF_Sibir.Local.AllClients.ro...	7000	12000	13000	30000	10	0	data10	false

. 14.

SSID EMS

"Wireless" " SSID" " SSID" SSID (. 15 SSID "office_1_ent"):

Редактировать SSID 'Office_1_ent'

Тип	Enterprise
Имя	★ Office_1_ent
Описание	
Domain	★ last.MRF_Sibir.Local.AllClients.root
Статус SSID	Operational
Дата создания	2021-03-24 11:02:46
Дата изменения	2021-03-24 11:02:46
----- Параметры окружения -----	
Bridge Location	data11
VRF	1
Switch Community	<input type="checkbox"/>
Требовать наличие Opt82	<input type="checkbox"/>
DPI (Step Logic)	<input type="checkbox"/>
----- Опции -----	
Статус VAP	Up
Режим трафика VAP (только для GRE)	Tunnel
Broadcast SSID	<input checked="" type="checkbox"/>
Radio	All
Режим безопасности	WPA Enterprise
Поддержка WPA-TKIP	<input checked="" type="checkbox"/>
Поддержка WPA2-AES	<input checked="" type="checkbox"/>
Поддержка TLS	<input type="checkbox"/>
Enable pre-authentication	<input type="checkbox"/>
MAC Auth Type	Disable
Broadcast Key Refresh Rate	0
Session Key Refresh Rate	0
Статус Client QoS	on
VLAN-ID	<input checked="" type="checkbox"/> 11
QoS method (down link)	802.1p
VLAN trunk	<input type="checkbox"/>
General Mode	<input type="checkbox"/>
General VLAN-ID	1
802.1p priority (up link)	1
Изоляция клиентов	<input type="checkbox"/>
Band steer	<input checked="" type="checkbox"/>
Support 802.11k	<input type="checkbox"/>
PMKSA caching	<input type="checkbox"/>
Wireless Multicast Forwarding	<input type="checkbox"/>
Hotspot 2.0	<input type="text"/>
DiffServ Policy Up	<input type="text"/>
DiffServ Policy Down	<input type="text"/>
Bandwidth Limit Up, kbps	0
Bandwidth Limit Down, kbps	0
VAP Limit Up, kbps	0
VAP Limit Down, kbps	0
----- Minimal signal -----	
Enabled	<input type="checkbox"/>
----- RADIUS -----	
Active Server	primary
RADIUS IP Address:	100.123.0.2
RADIUS IP Address-1	100.123.0.3
RADIUS IP Address-2	
RADIUS IP Address-3	
RADIUS Key:	eltex
RADIUS Key-1	eltex
RADIUS Key-2	
RADIUS Key-3	
RADIUS accounting (вкл/выкл)	Up
RADIUS accounting period, s	600
RADIUS port	1812
----- Fast Bss Transition -----	
Статус Fast Transition	off

Расписание работы

?


Включить

✓Принять

✗Отменить

. 15

"802.1p priority". 0 7. 1. ". ESR PCRf "Domain update" (, SSID , ESR,).

SSID, (. 8). . (. 16):

Shaper для Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.Local.AllClients.root:

Average upstream bandwidth, kbps

9000

Peak upstream bandwidth, kbps

12000

Average downstream bandwidth, kbps

20000

Peak downstream bandwidth, kbps

30000

SSID Shapers:

Экспорт

SSID	Average u...	Peak upstr...	Average d...	Peak down...	VLAN ID	VLAN priority	Bridge, Loc...	Switch Co...
Office_1_ent	2000	9000	7000	25000	11	1	data11	<input type="checkbox"/>
Office_1_free	7000	12000	13000	30000	10	0	data10	<input type="checkbox"/>

✓Закреть

. 16.

. 16, "VLAN priority" SSID.

SSID

SSID . average , SSID up down.

SSID average. peak , SSID SSID peak .

, . 16. 2 ():


		Average upstream	Peak upstream	Average downstream	Peak downstream	Priority
	Office_1.LLC_Eltex_Novosibirsk.Novosibirskaya_oblast.NRF_Sibir.Local.AllClients.root	9000	12000	20000	30000	n/a
SSI D1	Office_1_ent	2000	9000	7000	25000	1
SSI D2	Office_1_free	7000	12000	13000	30000	0

2.

, SSID :

1. SSID "Office_1_ent" . SSID "Office_1_free" up peak 12000/, down 30000/.
2. SSID "Office_1_ent" . SSID "Office_1_ent" SSID "Office_1_free". SSID "Office_1_ent" up 5000/, .. SSID "Office_1_free" 7000/ average. 12000-7000=5000. 5000 < 9000 Peak upstream SSID "Office_1_ent". down SSID "Office_1_ent" 17000/, .. SSID "Office_1_free" 13000/. 30000-13000=17000. 17000<25000 Peak downstream SSID "Office_1_ent".

SSID , SSID , peak. SSID .

 !

"7" SSID average SSID, .

ESR

debug ESR.

```
Alfa(debug)# show brasd qos status
2021-03-26T15:33:02+07:00 %BRAS-E-ERROR:
2021-03-26T15:33:02+07:00 %BRAS-E-ERROR: Offices: 2, ssids 4; APs: 4, ssids: 4
2021-03-26T15:33:02+07:00 %BRAS-E-ERROR: Max used memory: 16 Mbyte (packet 1500 byte)
```

```
Alfa(debug)# show brasd qos statistics
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 1 rate 2000/7000 peak 9000/25000 [up
/down kbps] (1:1f40/1:1f41)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: |--Office_2.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 10000/25000 peak 15000/40000 [up/down kbps] (1:6/1:7)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |AP 192.168.253.15 loc NODE.14709.11
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |AP 192.168.253.28 loc NODE.14987.11
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/15000 peak 15000/40000 [up
/down kbps] (1:1f46/1:1f47)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 0 rate 3000/10000 peak 11000/30000 [up
/down kbps] (1:1f44/1:1f45)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: Default:
2021-03-26T15:34:56+07:00 %BRAS-E-ERROR: | | sent 0 bytes 0 pkts (dropped 0)
```

```
Alfa(debug)# show brasd qos statistics ip-address 192.168.240.252
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 1 rate 2000/7000 peak 9000/25000 [up
/down kbps] (1:1f40/1:1f41)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:39:57+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
```

```

Alfa(debug)# show brasd qos statistics office Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 1 rate 2000/7000 peak 9000/25000 [up
/down kbps] (1:1f40/1:1f41)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:42:21+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)

```

bridge-location:

```

1000-master(debug)# show brasd qos statistics office Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.
MRF_Sibir.Local.AllClients.root location data10
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:43:53+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)

```

Wi-Fi:

```

Alfa(debug)# show brasd qos statistics office Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root direction up
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 1 rate 2000/7000 peak 9000/25000 [up
/down kbps] (1:1f40/1:1f41)
2021-03-26T15:46:10+07:00 %BRAS-E-ERROR: | | | -up: sent 0 bytes 0 pkts (dropped 0)

Alfa(debug)# show brasd qos statistics office Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root direction down
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: |--Office_1.LLC_Eltex.Novosibirsk.Novosibirskaya_oblast.MRF_Sibir.
Local.AllClients.root: rate 9000/20000 peak 12000/30000 [up/down kbps] (1:4/1:5)
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | |AP 192.168.240.252 loc NODE.14910.11
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | |AP 192.168.240.231 loc NODE.14817.11
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | |--data10 vlan 10 : prio 0 rate 7000/13000 peak 12000/30000 [up
/down kbps] (1:1f42/1:1f43)
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | |--data11 vlan 11 : prio 1 rate 2000/7000 peak 9000/25000 [up
/down kbps] (1:1f40/1:1f41)
2021-03-26T15:46:13+07:00 %BRAS-E-ERROR: | | | -down: sent 0 bytes 0 pkts (dropped 0)

```