

INTERCONEXION DE REDES

Proyecto final

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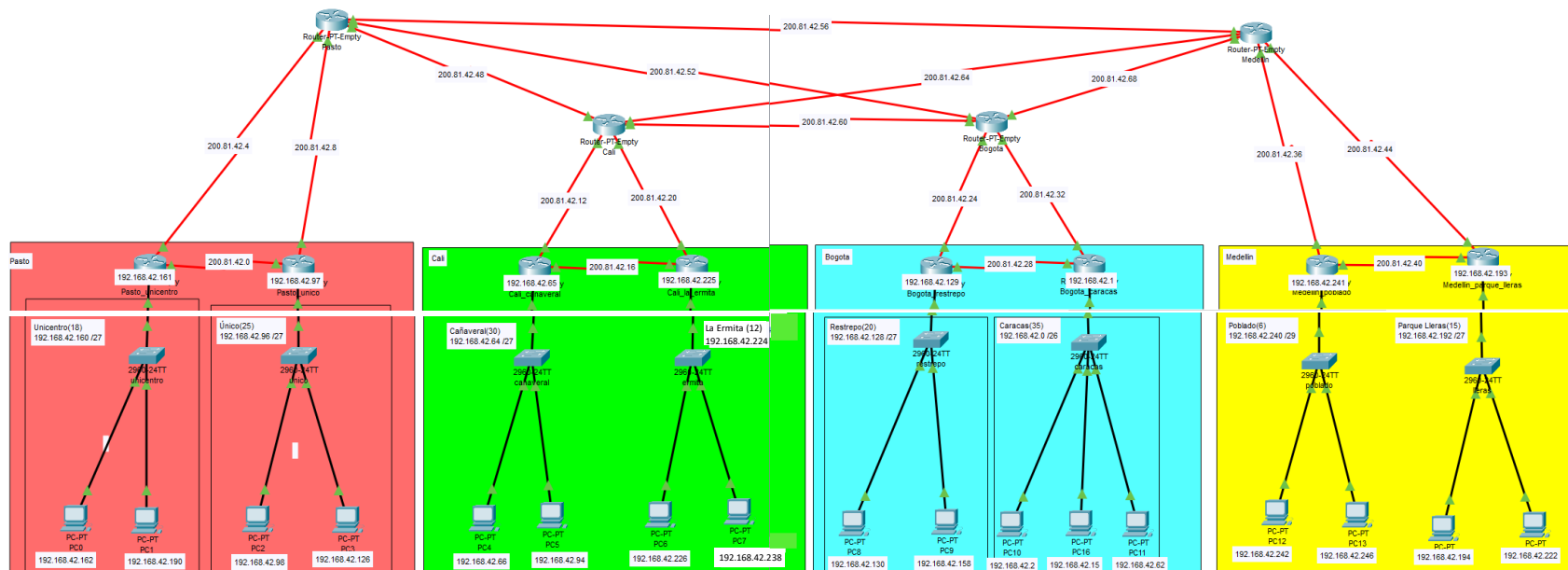
San Juan de Pasto, 20 de marzo de 2023

INFORME FINAL

Topología

Cada ciudad tiene su propio router conectados con redes de conexión serial

Cada ciudad tiene de a 2 switches de 2960 conectados con redes LAN

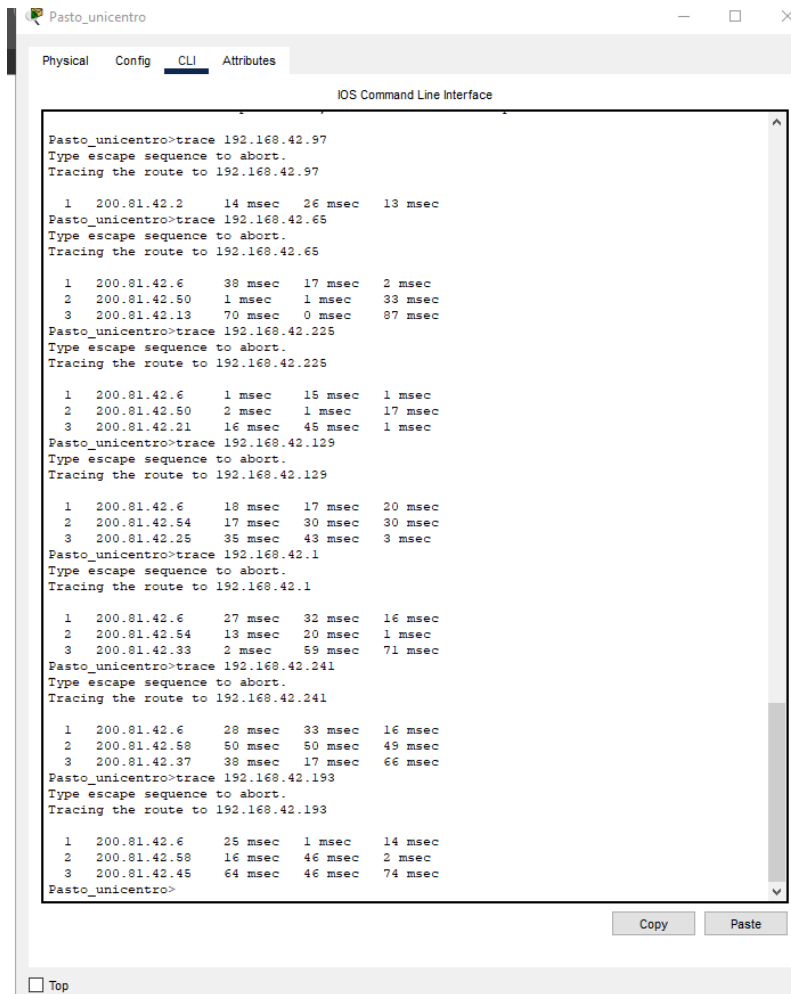


REDES LAN							
Red	Hosts	Subred	Máscara	Gateway	Primer Host	Último Host	Broadcast
Bogota_caracas	35 de 62	192.168.42.0/26	255.255.255.192	192.168.42.1	192.168.42.2	192.168.42.62	192.168.42.63
Cali_cañaveral	30 de 30	192.168.42.64/27	255.255.255.224	192.168.42.65	192.168.42.66	192.168.42.94	192.168.42.95
Pasto_unico	25 de 30	192.168.42.96/27	255.255.255.224	192.168.42.97	192.168.42.98	192.168.42.126	192.168.42.127
Bogota_restrepo	20 de 30	192.168.42.128/27	255.255.255.224	192.168.42.129	192.168.42.130	192.168.42.158	192.168.42.159
Pasto_unicentro	18 de 30	192.168.42.160/27	255.255.255.224	192.168.42.161	192.168.42.162	192.168.42.190	192.168.42.191
Medellin_parque_lleras	15 de 30	192.168.42.192/27	255.255.255.224	192.168.42.193	192.168.42.194	192.168.42.222	192.168.42.223
Cali_la_ermita	12 de 14	192.168.42.224/28	255.255.255.240	192.168.42.225	192.168.42.226	192.168.42.238	192.168.42.239
Medellin_poblado	6 de 6	192.168.42.240/29	255.255.255.248	192.168.42.241	192.168.42.242	192.168.42.246	192.168.42.247

REDES DE CONEXION SERIAL()						
Direccion de red	IP Serial 0	Router	IP Serial 1	Router	Broadcast	Máscara
200.81.42.0	200.81.42.1	Pasto_unicentro	200.81.42.2	Pasto_unico	200.81.42.3	255.255.255.252
200.81.42.4	200.81.42.5	Pasto_unicentro	200.81.42.6	Pasto	200.81.42.7	255.255.255.252
200.81.42.8	200.81.42.9	Pasto_unico	200.81.42.10	Pasto	200.81.42.11	255.255.255.252
200.81.42.12	200.81.42.13	Cali_canaveral	200.81.42.14	Cali	200.81.42.15	255.255.255.252
200.81.42.16	200.81.42.17	Cali_canaveral	200.81.42.18	Cali_la_ermita	200.81.42.19	255.255.255.252
200.81.42.20	200.81.42.21	Cali_la_ermita	200.81.42.22	Cali	200.81.42.23	255.255.255.252
200.81.42.24	200.81.42.25	Bogota_restrepo	200.81.42.26	Bogota	200.81.42.27	255.255.255.252
200.81.42.28	200.81.42.29	Bogota_restrepo	200.81.42.30	Bogota_caracas	200.81.42.31	255.255.255.252
200.81.42.32	200.81.42.33	Bogota_caracas	200.81.42.34	Bogota	200.81.42.35	255.255.255.252
200.81.42.36	200.81.42.37	Medellin_poblado	200.81.42.38	Medellin	200.81.42.39	255.255.255.252
200.81.42.40	200.81.42.41	Medellin_poblado	200.81.42.42	Medellin_parque_lleras	200.81.42.43	255.255.255.252
200.81.42.44	200.81.42.45	Medellin_parque_lleras	200.81.42.46	Medellin	200.81.42.47	255.255.255.252
200.81.42.48	200.81.42.49	Pasto	200.81.42.50	Cali	200.81.42.51	255.255.255.252
200.81.42.52	200.81.42.53	Pasto	200.81.42.54	Bogota	200.81.42.55	255.255.255.252
200.81.42.56	200.81.42.57	Pasto	200.81.42.58	Medellin	200.81.42.59	255.255.255.252
200.81.42.60	200.81.42.61	Cali	200.81.42.62	Bogota	200.81.42.63	255.255.255.252
200.81.42.64	200.81.42.65	Cali	200.81.42.66	Medellin	200.81.42.67	255.255.255.252
200.81.42.68	200.81.42.69	Bogota	200.81.42.70	Medellin	200.81.42.71	255.255.255.252

Trazas

Pasto Unicentro



The screenshot shows a web-based application window titled "Pasto_unicentro". It has a navigation bar with tabs: "Physical", "Config", "CLI" (selected), and "Attributes". The main content area is titled "IOS Command Line Interface" and displays a series of network trace commands and their results. Each trace command is followed by a "Type escape sequence to abort." prompt and a "Tracing the route to" message. The results show a sequence of hops with IP addresses and timing information in milliseconds.

```
Pasto_unicentro>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

 1  200.81.42.2    14 msec  26 msec  13 msec
Pasto_unicentro>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

 1  200.81.42.6    38 msec  17 msec  2 msec
 2  200.81.42.50   1 msec   1 msec  33 msec
 3  200.81.42.13   70 msec  0 msec  87 msec
Pasto_unicentro>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

 1  200.81.42.6    1 msec   15 msec  1 msec
 2  200.81.42.50   2 msec   1 msec  17 msec
 3  200.81.42.21  16 msec  45 msec  1 msec
Pasto_unicentro>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

 1  200.81.42.6    18 msec  17 msec  20 msec
 2  200.81.42.54   17 msec  30 msec  30 msec
 3  200.81.42.25   35 msec  43 msec  3 msec
Pasto_unicentro>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

 1  200.81.42.6    27 msec  32 msec  16 msec
 2  200.81.42.54   13 msec  20 msec  1 msec
 3  200.81.42.33   2 msec   59 msec  71 msec
Pasto_unicentro>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

 1  200.81.42.6    28 msec  33 msec  16 msec
 2  200.81.42.58   50 msec  50 msec  49 msec
 3  200.81.42.37   38 msec  17 msec  66 msec
Pasto_unicentro>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

 1  200.81.42.6    25 msec  1 msec  14 msec
 2  200.81.42.58   16 msec  46 msec  2 msec
 3  200.81.42.45   64 msec  46 msec  74 msec
Pasto_unicentro>
```

At the bottom of the CLI window, there are "Copy" and "Paste" buttons. Below the CLI window, there is a "Top" button.

Pasto único

Pasto_unico

Physical Config CLI Attributes

IOS Command Line Interface

```
Pasto_unico>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

 1  200.81.42.1    30 msec  15 msec  15 msec
Pasto_unico>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

 1  200.81.42.10   0 msec   19 msec  32 msec
 2  200.81.42.50   58 msec   1 msec  34 msec
 3  200.81.42.13   1 msec   1 msec   1 msec
Pasto_unico>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

 1  200.81.42.10   27 msec   17 msec  32 msec
 2  200.81.42.50   0 msec   2 msec   1 msec
 3  200.81.42.21   13 msec   66 msec  1 msec
Pasto_unico>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

 1  200.81.42.10   0 msec   30 msec  0 msec
 2  200.81.42.54   2 msec   36 msec  19 msec
 3  200.81.42.25   32 msec   32 msec  1 msec
Pasto_unico>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

 1  200.81.42.10   38 msec   18 msec  17 msec
 2  200.81.42.54   53 msec   31 msec  17 msec
 3  200.81.42.33   58 msec   38 msec  18 msec
Pasto_unico>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

 1  200.81.42.10   1 msec   1 msec   0 msec
 2  200.81.42.58   3 msec   16 msec  38 msec
 3  200.81.42.37   13 msec   2 msec   1 msec
Pasto_unico>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

 1  200.81.42.10   39 msec   0 msec   32 msec
 2  200.81.42.58   17 msec   2 msec   34 msec
 3  200.81.42.45   20 msec   4 msec   13 msec
Pasto_unico>
```

Copy Paste

Top

Cali - Cañaveral

Cali_canaveral

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
Cali_canaveral>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

  1  200.81.42.14  0 msec   1 msec   1 msec
  2  200.81.42.49  2 msec   1 msec   41 msec
  3  200.81.42.5   56 msec  2 msec   15 msec
Cali_canaveral>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

  1  200.81.42.14  33 msec  35 msec  0 msec
  2  200.81.42.49  52 msec  51 msec  17 msec
  3  200.81.42.9   3 msec   47 msec  75 msec
Cali_canaveral>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

  1  200.81.42.18  28 msec  13 msec  20 msec
Cali_canaveral>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

  1  200.81.42.14  16 msec  18 msec  34 msec
  2  200.81.42.62  18 msec  50 msec  71 msec
  3  200.81.42.25  19 msec  93 msec  43 msec
Cali_canaveral>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

  1  200.81.42.14  32 msec  29 msec  16 msec
  2  200.81.42.62  1 msec   31 msec  1 msec
  3  200.81.42.33  36 msec  39 msec  0 msec
Cali_canaveral>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

  1  200.81.42.14  14 msec  0 msec   18 msec
  2  200.81.42.66  68 msec  17 msec  2 msec
  3  200.81.42.37  51 msec  1 msec   19 msec
Cali_canaveral>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

  1  200.81.42.14  0 msec   34 msec  1 msec
  2  200.81.42.66  16 msec  2 msec   1 msec
  3  200.81.42.45  0 msec   62 msec  78 msec
Cali_canaveral>
```

Copy

Paste

☐ Top

Cali – La Ermita

Cali_la_ermita

Physical Config CLI Attributes

IOS Command Line Interface

```
Cali_la_ermita>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

  1  200.81.42.22    0 msec   1 msec   21 msec
  2  200.81.42.49    1 msec   32 msec   0 msec
  3  200.81.42.5     18 msec  49 msec   1 msec
Cali_la_ermita>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

  1  200.81.42.22    24 msec  15 msec   19 msec
  2  200.81.42.49    2 msec   15 msec   0 msec
  3  200.81.42.9     63 msec   1 msec   21 msec
Cali_la_ermita>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

  1  200.81.42.17    2 msec   15 msec   17 msec
Cali_la_ermita>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

  1  200.81.42.22    27 msec   0 msec   13 msec
  2  200.81.42.62    1 msec    2 msec   42 msec
  3  200.81.42.25    82 msec  83 msec   34 msec
Cali_la_ermita>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

  1  200.81.42.22    23 msec   0 msec    0 msec
  2  200.81.42.62    49 msec   1 msec   64 msec
  3  200.81.42.33    2 msec    1 msec   34 msec
Cali_la_ermita>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

  1  200.81.42.22    23 msec   16 msec   32 msec
  2  200.81.42.66    10 msec   2 msec    1 msec
  3  200.81.42.37    27 msec   1 msec   82 msec
Cali_la_ermita>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

  1  200.81.42.22    22 msec   2 msec    0 msec
  2  200.81.42.66    1 msec    0 msec    1 msec
  3  200.81.42.45    1 msec    2 msec    1 msec
Cali_la_ermita>
```

Copy

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Bogotá – Restrepo

Bogota_restrepo

Physical Config CLI Attributes

IOS Command Line Interface

```
Bogota_restrepo>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

 1  200.81.42.26   17 msec   18 msec   39 msec
 2  200.81.42.53   1 msec    19 msec   1 msec
 3  200.81.42.5    36 msec   0 msec    34 msec
Bogota_restrepo>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

 1  200.81.42.26   0 msec    1 msec    0 msec
 2  200.81.42.53   1 msec    1 msec    24 msec
 3  200.81.42.9    27 msec   2 msec    35 msec
Bogota_restrepo>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

 1  200.81.42.26   42 msec   20 msec   0 msec
 2  200.81.42.61   47 msec   0 msec    3 msec
 3  200.81.42.13   32 msec   49 msec   19 msec
Bogota_restrepo>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

 1  200.81.42.26   36 msec   17 msec   1 msec
 2  200.81.42.61   0 msec    55 msec   1 msec
 3  200.81.42.21   1 msec    34 msec   33 msec
Bogota_restrepo>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1


 1  200.81.42.30   45 msec   0 msec    1 msec
Bogota_restrepo>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

 1  200.81.42.26   65 msec   7 msec    17 msec
 2  200.81.42.70   1 msec    2 msec    39 msec
 3  200.81.42.37   3 msec    45 msec   48 msec
Bogota_restrepo>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

 1  200.81.42.26   2 msec    0 msec    1 msec
 2  200.81.42.70   1 msec    30 msec   31 msec
 3  200.81.42.45   17 msec   1 msec    36 msec
Bogota_restrepo>
```

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Bogotá – Caracas

 Bogota_caracas

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
Bogota_caracas>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

 1  200.81.42.34  0 msec   15 msec   0 msec
 2  200.81.42.53  35 msec   1 msec   33 msec
 3  200.81.42.5   63 msec   3 msec   34 msec
Bogota_caracas>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

 1  200.81.42.34  20 msec   19 msec   17 msec
 2  200.81.42.53  64 msec   21 msec   33 msec
 3  200.81.42.9   20 msec   36 msec   2 msec
Bogota_caracas>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

 1  200.81.42.34  26 msec   1 msec   30 msec
 2  200.81.42.61  1 msec    55 msec   1 msec
 3  200.81.42.13  51 msec   67 msec   63 msec
Bogota_caracas>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

 1  200.81.42.34  47 msec   17 msec   1 msec
 2  200.81.42.61  1 msec    0 msec    2 msec
 3  200.81.42.21  1 msec    15 msec   33 msec
Bogota_caracas>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

 1  200.81.42.29  2 msec    0 msec    1 msec
Bogota_caracas>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

 1  200.81.42.34  1 msec    0 msec    0 msec
 2  200.81.42.70  49 msec   17 msec   1 msec
 3  200.81.42.37  20 msec   47 msec   1 msec
Bogota_caracas>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193

 1  200.81.42.34  35 msec   0 msec    0 msec
 2  200.81.42.70  15 msec   1 msec    1 msec
 3  200.81.42.45  20 msec   53 msec   1 msec
Bogota_caracas>
```

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Medellín – Poblado

Medellin_poblado

Physical

Config

CLI

Attributes

IOS Command Line Interface

```
Medellin_poblado>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

  1  200.81.42.38    17 msec   13 msec   16 msec
  2  200.81.42.57    31 msec   18 msec   19 msec
  3  200.81.42.5     2 msec    16 msec   3 msec
Medellin_poblado>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

  1  200.81.42.38     0 msec    0 msec   32 msec
  2  200.81.42.57     1 msec    1 msec   41 msec
  3  200.81.42.9     21 msec   60 msec   15 msec
Medellin_poblado>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

  1  200.81.42.38    11 msec   29 msec   1 msec
  2  200.81.42.65     2 msec    37 msec   47 msec
  3  200.81.42.13    66 msec   2 msec    50 msec
Medellin_poblado>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

  1  200.81.42.38    27 msec   2 msec    14 msec
  2  200.81.42.65    39 msec   1 msec    18 msec
  3  200.81.42.21    82 msec   30 msec   1 msec
Medellin_poblado>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

  1  200.81.42.38     1 msec    2 msec   31 msec
  2  200.81.42.69    46 msec   41 msec   13 msec
  3  200.81.42.25     1 msec    13 msec   45 msec
Medellin_poblado>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

  1  200.81.42.38    50 msec   31 msec   19 msec
  2  200.81.42.69     0 msec    21 msec   48 msec
  3  200.81.42.33     3 msec    47 msec   2 msec
Medellin_poblado>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

  1  192.168.42.241  12 msec   4 msec    4 msec
Medellin_poblado>trace 192.168.42.193
Type escape sequence to abort.
Tracing the route to 192.168.42.193


  1  200.81.42.42    24 msec   16 msec   1 msec
Medellin_poblado>
```

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Medellín parque Lleras

 Medellín_parque_lleras

PhysicalConfigCLIAttributes

IOS Command Line Interface

```
00:00:10: 2000-0-00:00: Process 1, H02 200.01.42.42 on Serial7/0 from 2000:00:00:00:00:00:
Loading Done

Medellin_parque_lleras>trace 192.168.42.161
Type escape sequence to abort.
Tracing the route to 192.168.42.161

  1  200.81.42.46   14 msec   18 msec   16 msec
  2  200.81.42.57   28 msec   48 msec   48 msec
  3  200.81.42.5    34 msec   27 msec   17 msec
Medellin_parque_lleras>trace 192.168.42.97
Type escape sequence to abort.
Tracing the route to 192.168.42.97

  1  200.81.42.46   29 msec   26 msec   15 msec
  2  200.81.42.57   34 msec   32 msec   45 msec
  3  200.81.42.9    39 msec   89 msec   2 msec
Medellin_parque_lleras>trace 192.168.42.65
Type escape sequence to abort.
Tracing the route to 192.168.42.65

  1  200.81.42.46    0 msec    33 msec   18 msec
  2  200.81.42.65    1 msec    1 msec    1 msec
  3  200.81.42.13   37 msec   85 msec   3 msec
Medellin_parque_lleras>trace 192.168.42.225
Type escape sequence to abort.
Tracing the route to 192.168.42.225

  1  200.81.42.46    1 msec    2 msec   15 msec
  2  200.81.42.65   54 msec    1 msec   39 msec
  3  200.81.42.21   18 msec   77 msec   34 msec
Medellin_parque_lleras>trace 192.168.42.129
Type escape sequence to abort.
Tracing the route to 192.168.42.129

  1  200.81.42.46   13 msec   31 msec   2 msec
  2  200.81.42.69   47 msec   30 msec   0 msec
  3  200.81.42.25    2 msec   35 msec   51 msec
Medellin_parque_lleras>trace 192.168.42.1
Type escape sequence to abort.
Tracing the route to 192.168.42.1

  1  200.81.42.46   19 msec    0 msec   28 msec
  2  200.81.42.69   34 msec   42 msec   15 msec
  3  200.81.42.33    1 msec    3 msec    1 msec
Medellin_parque_lleras>trace 192.168.42.241
Type escape sequence to abort.
Tracing the route to 192.168.42.241

  1  200.81.42.41   26 msec   16 msec    0 msec
```

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