

# DIGITAL SEGURIDAD

CAPACITACION CIRCUITO CERRADO DE CAMARAS DE SEGURIDAD



LA EMPRESA

# Instalaciones

1. Comercios
  2. Oficinas
  3. Restaurantes
  4. Casas
  5. Apartamentos
  6. Estacionamientos
  7. Conjuntos residenciales
- Etc.



# Glosario

1. Autoiris
2. Balum
3. DVR
4. Infrarrojo
5. NTSC
6. TVL
7. Varifocal
8. CMOS (SEMI CONDUCTOR DE OXIDO METALICO)
9. CCD (DISPOSITIVO DE CARGA ACOPLADA)



# **HERRAMIENTAS BASICAS PARA UNA INSTALACION DE CCTV**

- 1. DESTORNILLADORES DE PALA Y ESTRIA**
- 2. TALADRO ALAMBRICO Y INALAMBRICO**
- 3. DIFERENTES TIPOS DE MECHAS (MADERA, METAL Y CEMENTO)**
- 4. PISTOLA DE CILICON**
- 5. PIQUETAS**
- 6. METRO**
- 7. EXTENCION DE CORRIENTE**
- 8. CLIPEADORA**
- 9. TESTER DE CORRIENTE**
- 10. PROBADOR DE CORRIENTE**
- 11. TESTER DE CABLE DE RED**
- 12. RADIOS**





# Cámaras Interiores



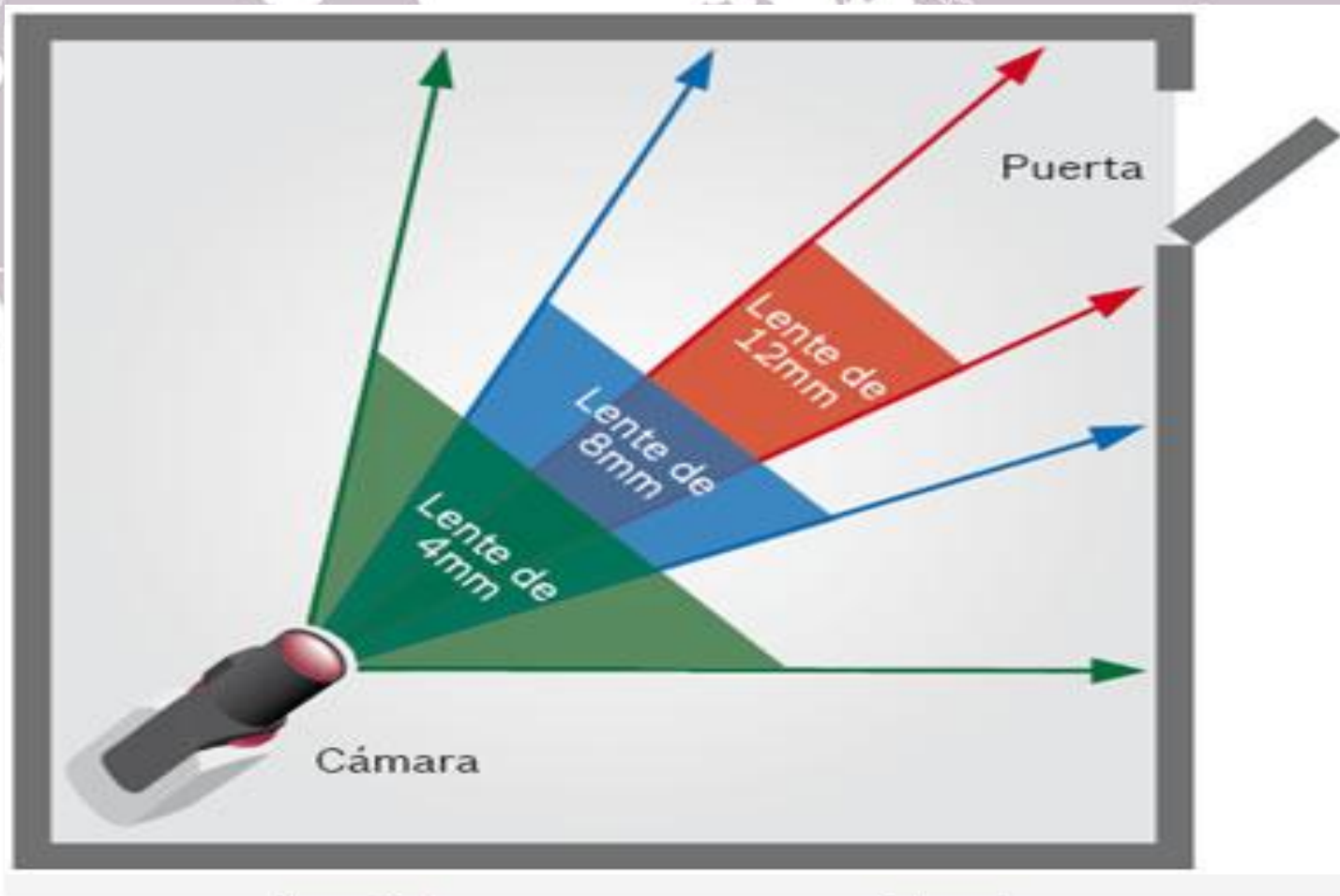
# Cámaras Exteriores



# Cámaras Espías



# Lentes Cámaras

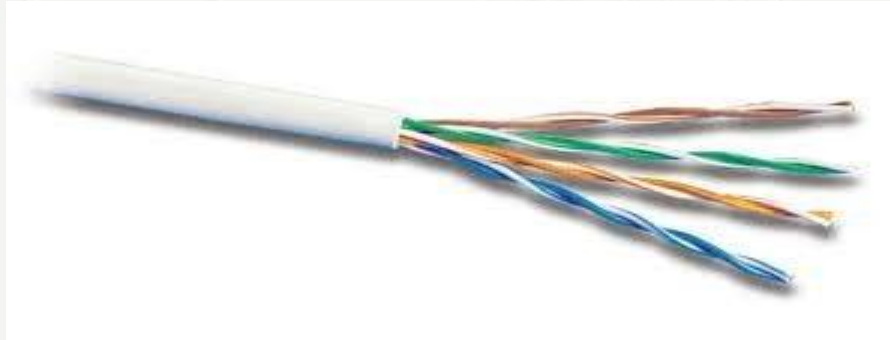




# Conectores



# Cableado



# CABLEADO Y DISTANCIAS

| Distancia en metros |      | Tipo de cable |
|---------------------|------|---------------|
| 0                   | 100  | RG-59         |
| 100                 | 250  | RG-11         |
| 0                   | 400  | UTP Pasivo    |
| 400                 | 1200 | UTP Activo    |
| >                   | 5200 | Fibra óptica  |



# CABLEADO INSTALACION RJ45

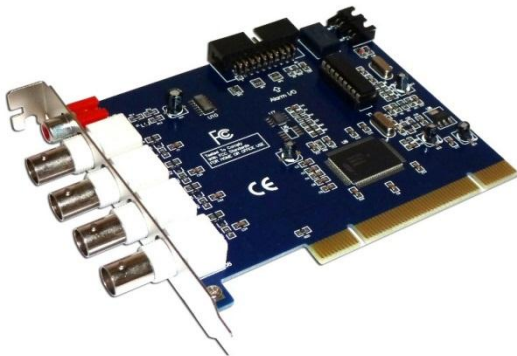
TIA/EIA-568-B T568B Wiring

| Pin | Pair | Wire | Color  |
|-----|------|------|--|
| 1   | 2    | 1    |  white/orange  |
| 2   | 2    | 2    |  orange        |
| 3   | 3    | 1    |  white/green   |
| 4   | 1    | 2    |  blue          |
| 5   | 1    | 1    |  white/blue    |
| 6   | 3    | 2    |  green        |
| 7   | 4    | 1    |  white/brown |
| 8   | 4    | 2    |  brown       |





# Dvr HM





# Disco duros

## TIEMPO DE GRABACION ESTANDAR

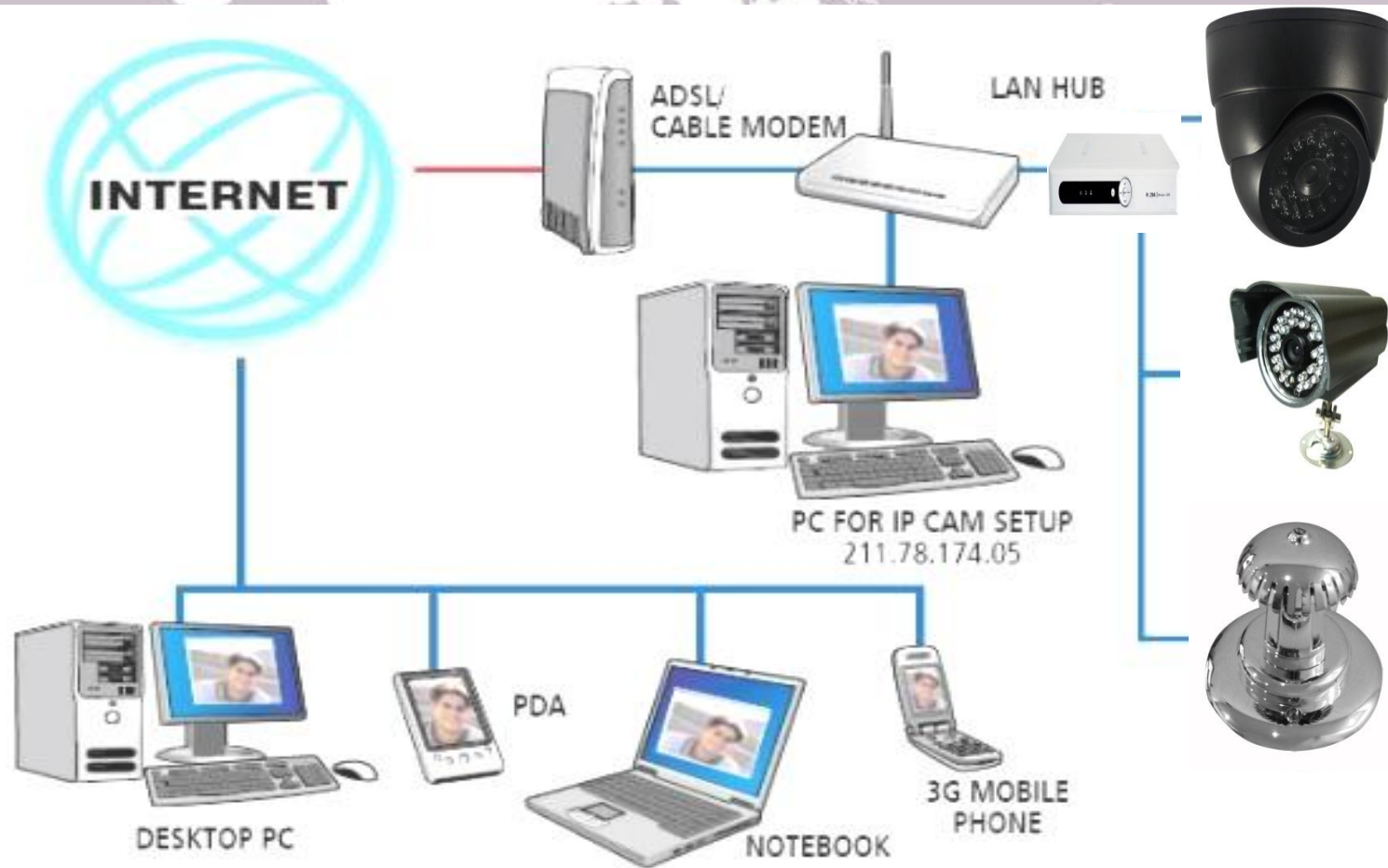
| DISCO GB | CAMARAS | DIAS Y HORAS |
|----------|---------|--------------|
| 500      | 4       | 10D 19H      |
| 500      | 8       | 5D 9H        |
| 500      | 16      | 2D 16H       |
| 500      | 32      | 1D 8H        |
| 1000     | 4       | 22D 3H       |
| 1000     | 8       | 11D 1H       |
| 1000     | 16      | 5D 11H       |
| 1000     | 32      | 2D 18H       |
| 2000     | 4       | 44D 7H       |
| 2000     | 8       | 22D 3H       |
| 2000     | 16      | 11D 1H       |
| 2000     | 32      | 5D 11H       |



# Electricidad



# Internet





# TIPOS DE IP

**IP PUBLICAS (CANTV , INTERCABLE , MOVIESTAR)**

**200.35.42.12**

**192.45.26.4**

**IP PRIVADAS (ROUTER , INTRANET)**

**192.168.0.1**

**192.168.1.1**

**LIBERAR PUERTO 80 SOLICITAR PARA CANTV FIREWALL**

**DNS DE CANTV**

**200.44.32.12**

**200.11.248.12**



# Router





# Router

## Nombre de wifi

TP-LINK® 150M Wireless Lite N Router  
Model No. TL-WR740N / TL-WR740ND

### Wireless Settings

Wireless Network Name:  (Also called the SSID)

Region:

Warning: Ensure you select a correct country to conform local law. Incorrect settings may cause interference.

Channel:

Mode:

Channel Width:

☒ Enable Wireless Radio

☒ Enable SSID Broadcast

☐ Enable WDS Bridging

### Wireless Settings Help

**Note:** The operating distance or range of your wireless connection varies significantly based on the physical placement of the Device. For best results, place your Device.

- Near the center of the area in which your wireless stations will operate.
- In an elevated location such as a high shelf.
- Away from the potential sources of interference, such as PCs, microwaves, and cordless phones.
- With the Antenna in the upright position.
- Away from large metal surfaces.

**Note:** Failure to follow these guidelines can result in significant performance degradation or inability to wirelessly connect to the Device.

**Wireless Network Name** - Enter a value of up to 32 characters. The same Name (SSID) must be assigned to all wireless devices in your network.

**Region** - Select your region from the pull-down list. This field specifies the region where the wireless function of the Device can be used. It may be illegal to use the wireless function of the Device in a region other than one of those specified in this field. If your country or region is not listed, please contact your local government agency for assistance.

**Channel** - This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point. If you select auto, then AP will choose the best channel automatically.

**Mode** - If all of the wireless devices connected with this wireless Device can connect in the same transmission mode(eg. 802.11b), you can choose "Only" mode(eg. 11b only). If you have some devices that use a different transmission mode, choose the appropriate "Mixed" mode.

**Channel Width** - The bandwidth of the wireless channel.

**Enable Wireless Device Radio** - The wireless radio of the Device can be enabled or disabled to allow wireless stations access. If enabled, the wireless stations will be able to access the Device, otherwise, wireless stations will not be able to access the Device.

**Enable SSID Broadcast** - If you select the **Enable SSID Broadcast** checkbox, the wireless Device will broadcast its name (SSID) on the air.

**Enable WDS Bridging** - You can select this to enable WDS Bridging, with

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# Router

## Contraseña de la wifi

TL-WR740N

192.168.0.1

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**TP-LINK®**

**150M Wireless Lite N Router**  
Model No. TL-WR740N / TL-WR740ND

**Wireless Security**

☐ Disable Security

☒ **WPA/WPA2 - Personal(Recommended)**

Version: Automatic(Recommended) ▼

Encryption: Automatic(Recommended) ▼

Password: cctv123456

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64 characters)

Group Key Update Period: 0 Seconds (Keep it default if you are not sure, minimum is 30, 0 means no update)

☐ **WPA/WPA2 - Enterprise**

Version: Automatic ▼

Encryption: Automatic ▼

Radius Server IP:

Radius Port: 1812 (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period: 0 (in second, minimum is 30, 0 means no update)

☐ **WEP**

Type: Open System ▼

WEP Key Format: Hexadecimal ▼

Key Selected: WEP Key (Password) Key Type: Disabled ▼

**Wireless Security Help**

You can select one of the following security options:

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, the wireless stations will be able to connect the Device without encryption. It is recommended strongly that you choose one of following options to enable security.
- **WPA/WPA2 - Personal** - Select WPA based on pre-shared passphrase.
- **WPA/WPA2 - Enterprise** - Select WPA based on Radius Server.
- **WEP** - Select 802.11 WEP security.

Each security option has its own settings as described follows,

**WPA/WPA2 - Personal**

**Version** - You can select one of following versions,

- **Automatic** - Select WPA-Personal or WPA2-Personal automatically based on the wireless station's capability and request.
- **WPA-Personal** - Pre-shared key of WPA.
- **WPA2-Personal** - Pre-shared key of WPA2.

**Encryption** - You can select either **Automatic**, or **TKIP** or **AES**.

**Password** - You can enter **ASCII** or **Hexadecimal** characters. For **Hexadecimal**, the length should be between 8 and 64 characters; for **ASCII**, the length should be between 8 and 63 characters.

**Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.

**WPA/WPA2 - Enterprise**

**Version** - You can select one of following versions,

- **Automatic** - Select WPA or WPA2 automatically based on the wireless station's capability and request.
- **WPA** - Wi-Fi Protected Access.
- **WPA2** - WPA version 2.

**Encryption** - You can select either **Automatic**, or **TKIP** or **AES**.

**Radius Server IP** - Enter the IP address of the Radius Server.

**Radius Port** - Enter the port of the Radius Server.

# Router

## Abrir los puertos:

TP-LINK® 150M Wireless Lite N Router Model No. TL-WR740N / TL-WR740ND

### Virtual Servers

| ID | Service Port | Internal Port | IP Address   | Protocol | Status  | Modify  |
|----|--------------|---------------|--------------|----------|---------|---|
| 1  | 1080         | 1080          | 192.168.0.50 | ALL      | Enabled | <a href="#">Modify</a> <a href="#">Delete</a> |
| 2  | 34599        | 34599         | 192.168.0.50 | ALL      | Enabled | <a href="#">Modify</a> <a href="#">Delete</a> |

[Add New...](#) [Enable All](#) [Disable All](#) [Delete All](#)

[Previous](#) [Next](#)

### Virtual Servers Help

Virtual servers can be used for setting up public services on your LAN. A virtual server is defined as a service port, and all requests from Internet to this service port will be redirected to the computer specified by the server IP. Any PC that was used for a virtual server must have a static or reserved IP address because its IP address may change when using the DHCP function.

- Service Port** - The numbers of External Service Ports. You can enter a service port or a range of service ports (the format is XXX - YYY, XXX is Start port, YYY is End port).
- Internal Port** - The Internal Service Port number of the PC running the service application. You can leave it blank if the Internal Port is the same as the Service Port, or enter a specific port number when Service Port is a single one.
- IP Address** - The IP address of the PC running the service application.
- Protocol** - The protocol used for this application, either TCP, UDP, or All (all protocols supported by the Device).
- Status** - The status of this entry, "Enabled" means the virtual server entry is enabled.
- Common Service Port** - Some common services already exist in the pull-down list.
- Modify** - To modify or delete an existing entry.

**To setup a virtual server entry:**

- Click the **Add New...** button.
- Select the service you want to use from the **Common Service Port** list. If the **Common Service Port** menu does not list the service that you want to use, enter the number of the service port or service port range in the **Service Port** box.
- Enter the IP address of the computer running the service application in the **IP Address** box.
- Select the protocol used for this application in the **Protocol** box, either TCP, UDP, or All.
- Select the **Enabled** option in the **Status** pull-down list.
- Click the **Save** button.

**Note:** It is possible that you have a computer or server that has more than one type of available service. If so select another service, and type the same IP address for that computer or server.

**To modify or delete an existing entry:**

- Find the desired entry in the table.

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# Router

## Abrir los puertos:

TL-WR740N

192.168.0.1

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**TP-LINK®**

150M Wireless Lite N Router  
Model No. TL-WR740N / TL-WR740ND

**Add or Modify a Virtual Server Entry**

Service Port: 1080 (XX-XX or XX)  
Internal Port: 1080 (XX, Only valid for single Service Port or leave a blank)  
IP Address: 192.168.0.50  
Protocol: ALL  
Status: Enabled  
Common Service Port: --Select One--

Save Back

**Virtual Servers Help**

Virtual servers can be used for setting up public services on your LAN. A virtual server is defined as a service port, and all requests from Internet to this service port will be redirected to the computer specified by the server IP. Any PC that was used for a virtual server must have a static or reserved IP address because its IP address may change when using the DHCP function.

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**To setup a virtual server entry:**

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2. Select the service you want to use from the **Common Service Port** list. If the **Common Service Port** menu does not list the service that you want to use, enter the number of the service port or service port range in the **Service Port** box.
3. Enter the IP address of the computer running the service application in the **IP Address** box.
4. Select the protocol used for this application in the Protocol box, either TCP, UDP, or All.
5. Select the **Enabled** option in the **Status** pull-down list.
6. Click the **Save** button.

**Note:** It is possible that you have a computer or server that has more than one type of available service. If so select another service, and type the same IP address for that computer or server.

**To modify or delete an existing entry:**

1. Find the desired entry in the table.

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# Router

## Abrir los puertos:

TL-WR740N

192.168.0.1

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**TP-LINK®**

150M Wireless Lite N Router  
Model No. TL-WR740N / TL-WR740ND

**Status**  
Quick Setup  
QSS  
Network  
Wireless  
DHCP  
**Forwarding**  
- Virtual Servers  
- Port Triggering  
- DMZ  
- UPnP  
Security  
Parental Control  
Access Control  
Advanced Routing  
Bandwidth Control  
IP & MAC Binding  
Dynamic DNS  
System Tools

**Add or Modify a Virtual Server Entry**

Service Port: 34599 (XX-XX or XX)  
Internal Port: 34599 (XX, Only valid for single Service Port or leave a blank)  
IP Address: 192.168.0.50  
Protocol: ALL  
Status: Enabled  
Common Service Port: --Select One--

Save Back

**Virtual Servers Help**

Virtual servers can be used for setting up public services on your LAN. A virtual server is defined as a service port, and all requests from Internet to this service port will be redirected to the computer specified by the server IP. Any PC that was used for a virtual server must have a static or reserved IP address because its IP address may change when using the DHCP function.

- Service Port** - The numbers of External Service Ports. You can enter a service port or a range of service ports (the format is XXX - YYY, XXX is Start port, YYY is End port).
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5. Select the **Enabled** option in the **Status** pull-down list.
6. Click the **Save** button.

**Note:** It is possible that you have a computer or server that has more than one type of available service. If so select another service, and type the same IP address for that computer or server.

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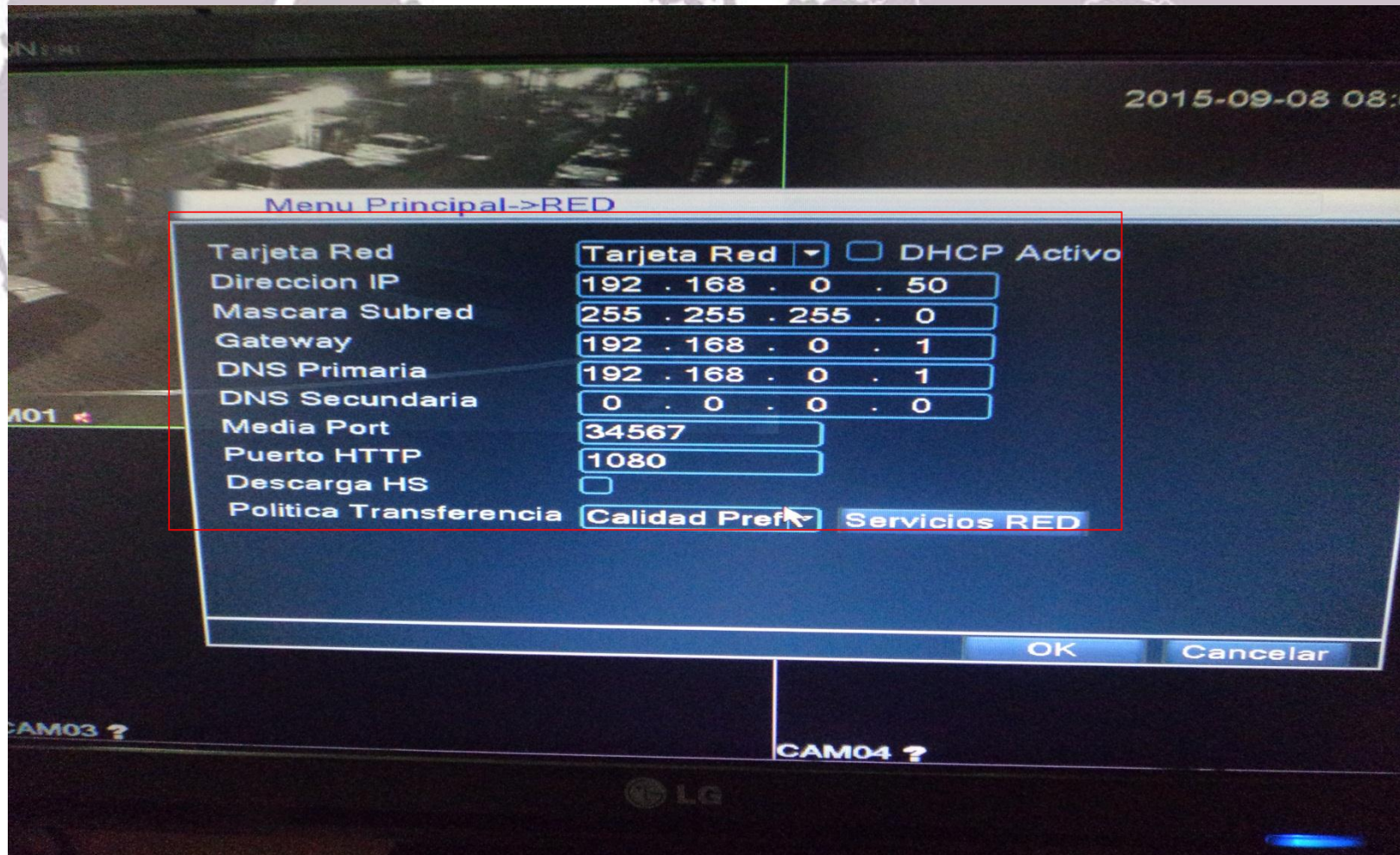


# Dvr Configuración



# DVR

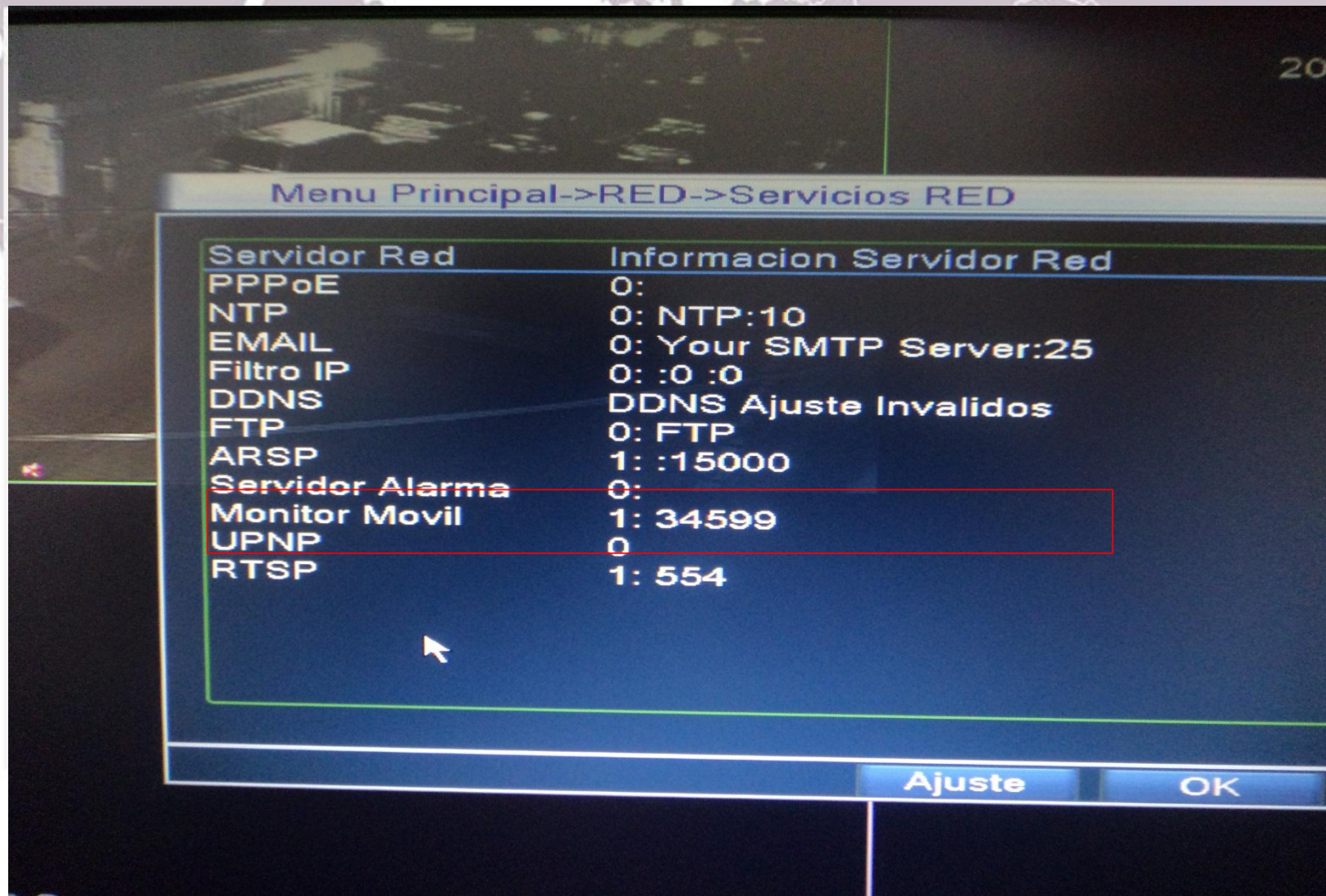
Configuración de red y puerto http:





# DVR

Puerto Móvil para celulares y Tablet:



# **PRESUPUESTO**

- 1. Definir cámaras a colocar**
- 2. Definir cableado**
- 3. Definir materiales**
- 4. Dvr**
- 5. Disco duro**
- 6. Video balum**
- 7. Adaptadores o fuente de corriente**

