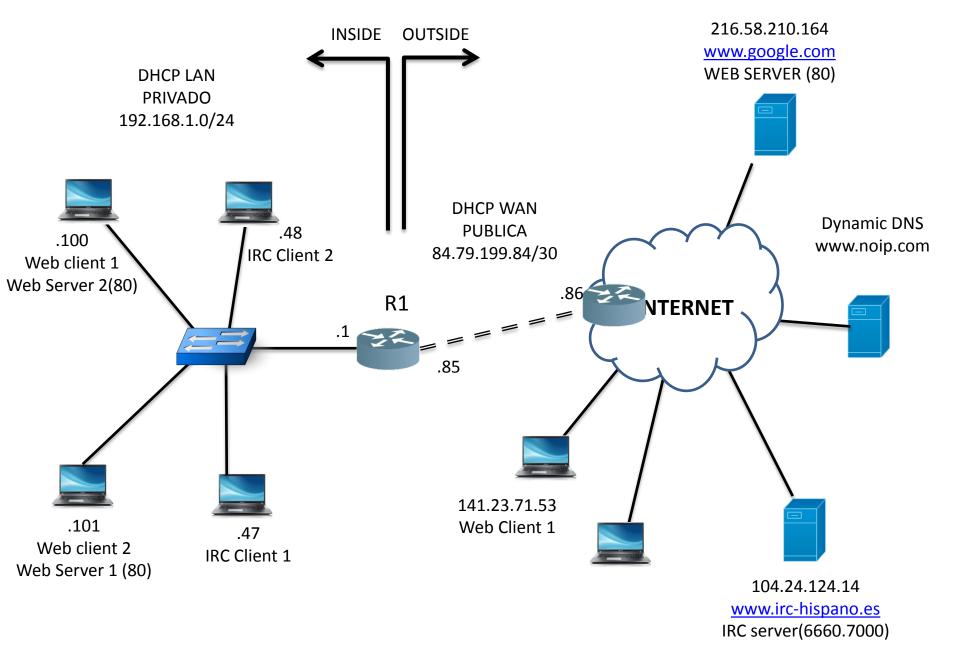
# SEMINARIO PUESTA EN MARCHA DE SERVICIOS TELEMÁTICOS EN INTERNET CON DDNS Miguel Ángel López TDRC, 3º GII, UGR 2019

### **Protocolos y conceptos:**

- DHCP
  - LAN
    - IP PRIVADA
  - WAN
    - IP PÚBLICA
      - FIJA
      - DINÁMICA
- NAT
  - ARQUITECTURA CLIENTE/SERVIDOR
  - APERTURA DE PUERTOS
  - PORT TRIGGERING



• Un Cliente Web en INSIDE, un Servidor WEB en OUTSIDE

INSIDE		OUTSIDE	
LOCAL	GLOBAL	LOCAL	GLOBAL
192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80

Dos Clientes Web en INSIDE, un Servidor WEB en OUTSIDE

INSIDE		OUTSIDE	
LOCAL	GLOBAL	LOCAL	GLOBAL
192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80
192.168.1.101:55522	84.79.199.85: 61723	216.58.210.164:80	216.58.210.164:80

• Un servidor WEB en INSIDE, un cliente WEB en outside

Problemas

Soluciones

INSIDE		OUTSIDE	
LOCAL	GLOBAL	LOCAL	GLOBAL
192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80
192.168.1.101:55522	84.79.199.85: 61723	216.58.210.164:80	216.58.210.164:80
192.168.1.101:80	84.79.199.85: 80	141.23.71.53:5432	141.23.71.53:5432

Dos servidores WEB in INSIDE, un cliente WEB en OUTSIDE

	INSIDE		OUTSIDE	
	LOCAL	GLOBAL	LOCAL	GLOBAL
D	192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80
D	192.168.1.101:55522	84.79.199.85: 61723	216.58.210.164:80	216.58.210.164:80
S	192.168.1.101:80	84.79.199.85: 80	141.23.71.53:5432	141.23.71.53:5432
S	192.168.1.100:80	84.79.199.85:	141.23.71.53:6111	141.23.71.53:6111

• Un cliente IRC en INSIDE, un servidor IRC en OUTSIDE

	INSIDE		OUTSIDE	
	LOCAL	GLOBAL	LOCAL	GLOBAL
D	192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80
D	192.168.1.101:55522	84.79.199.85: 61723	216.58.210.164:80	216.58.210.164:80
S	192.168.1.101:80	84.79.199.85: 80	141.23.71.53:5432	141.23.71.53:5432
S	192.168.1.100:80	84.79.199.85:	141.23.71.53:6111	141.23.71.53:6111
	192.168.1.47: 36721	84.79.199.85: 47234	104.24.124.14:6660	104.24.124.14:6660
7	192.168.1.47:113	84.79.199.85: 113	104.24.124.14:2893	104.24.124.14:2893

Dos clientes IRC en INSIDE, un servidor IRC en OUTSIDE

INSIDE		OUTSIDE	
LOCAL	GLOBAL	LOCAL	GLOBAL
192.168.1.100:43723	84.79.199.85: 43723	216.58.210.164:80	216.58.210.164:80
192.168.1.101:55522	84.79.199.85: 61723	216.58.210.164:80	216.58.210.164:80
192.168.1.101:80	84.79.199.85: 80	141.23.71.53:5432	141.23.71.53:5432
192.168.1.100:80	84.79.199.85:	141.23.71.53:6111	141.23.71.53:6111
192.168.1.47: 36721	84.79.199.85: 47234	104.24.124.14:6660	104.24.124.14:6660
192.168.1.47:113	84.79.199.85: 113	104.24.124.14:2893	104.24.124.14:2893
192.168.1.48:3456	84.79.199.85: 4423	104.24.124.14:6661 104.24.124.14:2893	104.24.124.14:6661 104.24.124.14:2893
	LOCAL  192.168.1.100:43723  192.168.1.101:55522  192.168.1.101:80  192.168.1.47: 36721  192.168.1.47:113	LOCAL       GLOBAL         192.168.1.100:43723       84.79.199.85: 43723         192.168.1.101:55522       84.79.199.85: 61723         192.168.1.101:80       84.79.199.85: 80         192.168.1.100:80       84.79.199.85:         192.168.1.47: 36721       84.79.199.85: 47234         192.168.1.47:113       84.79.199.85: 113	LOCAL       GLOBAL       LOCAL         192.168.1.100:43723       84.79.199.85: 43723       216.58.210.164:80         192.168.1.101:55522       84.79.199.85: 61723       216.58.210.164:80         192.168.1.101:80       84.79.199.85: 80       141.23.71.53:5432         192.168.1.100:80       84.79.199.85:       141.23.71.53:6111         192.168.1.47: 36721       84.79.199.85: 47234       104.24.124.14:6660         192.168.1.47:113       84.79.199.85: 113       104.24.124.14:2893         192.168.1.48:3456       84.79.199.85: 4423       104.24.124.14:6661