

GVRP

- GARP VLAN Registration Protocol (GVRP) is a Protocol application that provides VLAN registration service by means of dynamic configuration (registration) and distribution of VLAN membership information.
- A Brocade device enabled for GVRP can do the following:
 - Learn about VLANs from other Brocade devices and configure those VLANs on the ports that learn about the VLANs. The device listens for GVRP Protocol Data Units (PDUs) from other devices, and implements the VLAN configuration information in the PDUs.
 - Advertise VLANs configured on the device to other Brocade devices. The device sends GVRP PDUs advertising its VLANs to other devices. GVRP advertises statically configured VLANs and VLANs learned from other devices through GVRP.
- Supported Platforms
 - ICX6430, ICX6450, FCX, ICX6610, ICX6650, FSX, ICX7750
- Single STP should be enable on the device (support of RSTP- 802.1w)

GVRP

Enabling & Configuring GVRP

- To enable GVRP, enter commands such as the following at the global CONFIG level of the CLI.
 - `device(config)#gvrp-enable`
- The following command enables GVRP on ports 1/1/23, 1/1/24
 - `device(config-gvrp)#enable ethernet 1/1/23 to 1/1/24`
 - **Syntax:** `[no] enable all | ethernet port [ethernet port | to port]`
- To disable VLAN learning on a port enabled for GVRP, enter a command such as the following at the GVRP configuration level.
 - `device(config-gvrp)#block-learning ethernet 1/1/23 to 1/1/24`
 - **Syntax:** `[no] block-learning all | ethernet port [ethernet port | to port]`

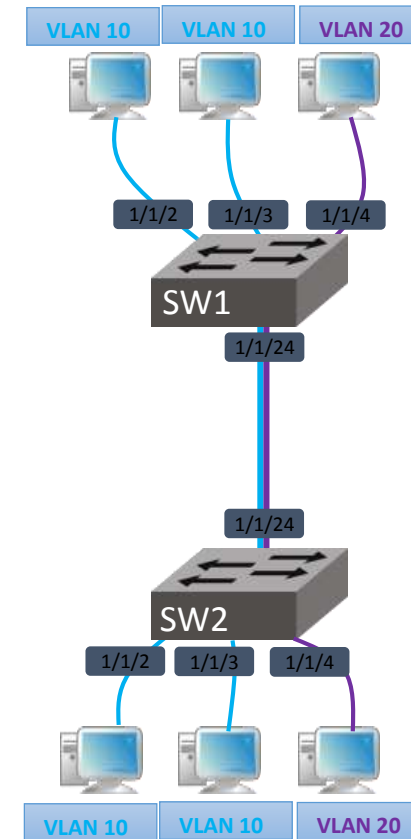


GVRP (1/6)

Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

```
SW1 (config)# vlan 10  
SW1 (config-vlan-10)# tag e 1/1/24  
SW1 (config-vlan-10)# vlan 20  
SW1 (config-vlan-20)# tag e 1/1/24  
SW1 (config)#spanning-tree single 802-1w  
SW1 (config)#gvrp-enable  
SW1 (config-gvrp)#block-learning all  
SW1 (config-gvrp)#enable eth 1/1/24
```



GVRP (2/6)

Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

```
SwitchD(config)#show gvrp
GVRP is enabled on the system

GVRP BASE VLAN ID      : 4093
GVRP MAX Leave-all Timer : 300000 ms

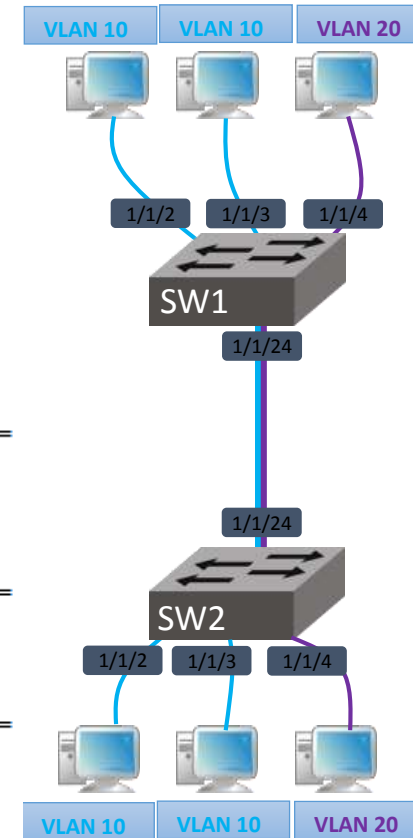
GVRP Join Timer        : 200 ms
GVRP Leave Timer       : 600 ms
GVRP Leave-all Timer  : 10000 ms
```

=====
Configuration that is being used:

```
block-learning all
enable ethe 1/1/23 to 1/1/24
```

=====
Spanning Tree: SINGLE SPANNING TREE
Dropped Packets Count: 0

=====
Number of VLANs in the GVRP Database: 6
Maximum Number of VLANs that can be present: 64
=====



GVRP (3/6)

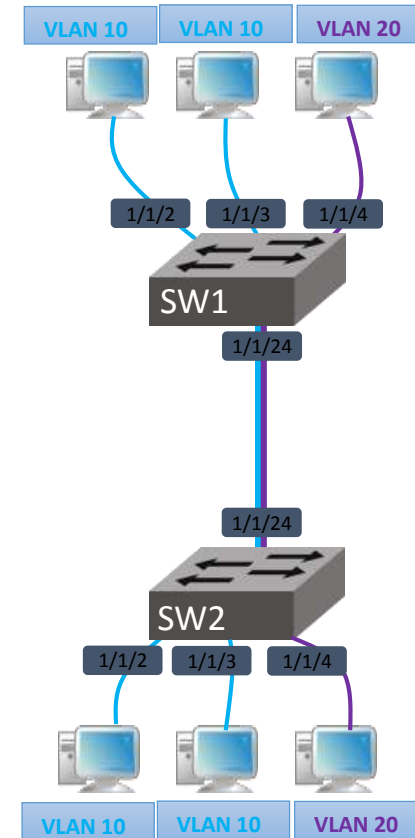
Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

```
SwitchD(config)#show gvrp vlan brief
```

```
Number of VLANs in the GVRP Database: 6  
Maximum Number of VLANs that can be present: 64
```

[VLAN-ID]	[MODE]	[VLAN-INDEX]
1	STATIC-DEFAULT	0
10	STATIC	1
20	STATIC	2
4091	STATIC	6
4093	STATIC-GVRP-BASE-VLAN	8
4094	STATIC-SINGLE-SPAN-VLAN	7



GVRP (4/6)

Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

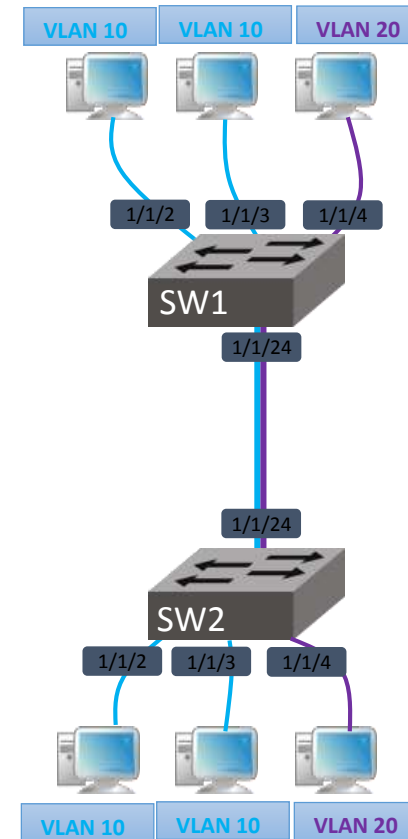
```
SW2 (config) #vlan 1
```

```
SW2 (config-vlan-1) #exit
```

```
SW2 (config) #spanning-tree single 802-1W
```

```
SW2 (config) #gvrp-enable
```

```
SW2 (config-gvrp) #enable ethe 1/1/24
```



GVRP (5/6)

Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

```
switchE(config)#show gvrp
GVRP is enabled on the system

GVRP BASE VLAN ID      : 4093
GVRP MAX Leaveall Timer : 300000 ms

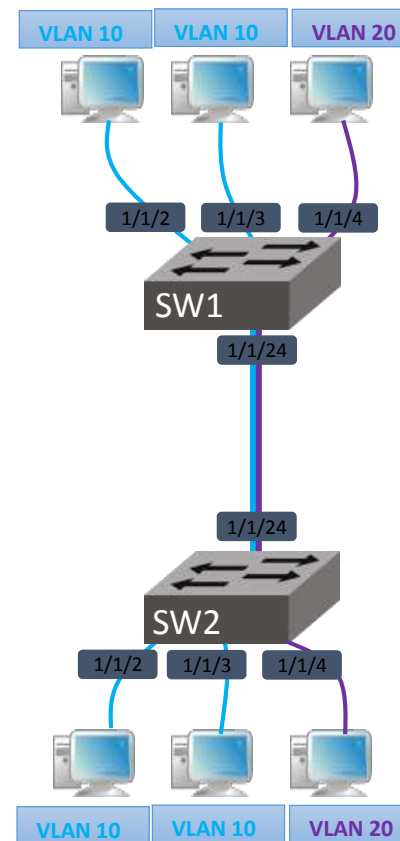
GVRP Join Timer        : 200 ms
GVRP Leave Timer       : 600 ms
GVRP Leave-all Timer  : 10000 ms
```

```
=====  
Configuration that is being used:
```

```
enable ethe 1/1/23 to 1/1/24  
=====
```

```
Spanning Tree: SINGLE SPANNING TREE  
Dropped Packets Count: 0  
=====
```

```
Number of VLANs in the GVRP Database: 6  
Maximum Number of VLANs that can be present: 64  
=====
```



GVRP (6/6)

Example

- SW1 is our Core Switch
- SW2 will learn VLANs from SW1

```
SwitchE(config)#show gvrp vlan brief
```

```
Number of VLANs in the GVRP Database: 6  
Maximum Number of VLANs that can be present: 64
```

[VLAN-ID]	[MODE]	[VLAN-INDEX]
1	STATIC-DEFAULT	0
10	DYNAMIC	4
20	DYNAMIC	5
4091	STATIC	1
4093	STATIC-GVRP-BASE-VLAN	3
4094	STATIC-SINGLE-SPAN-VLAN	2

