

**Cisco 650-127**

**Cisco Connected Grid (Engineer) Knowledge  
Verification  
Version: 4.1**

**QUESTION NO: 1**

Which of the following models supports Power over Ethernet?

- A. CGS-2520-24TC
- B. CGS-2520-16S-8PC
- C. All CGS models
- D. None of the model supports POE

**Answer: B**

**Explanation:**

## Power Over Ethernet Support

- PoE is supported only in CGS-2520-16S-8PC.
- Architecture is similar to Catalyst 3750E family switches.
- One Power Supply can support up to 65W and two Power Supplies support up to 170W of PoE.
- Powering all the 8 FE ports will require 2 Power Supplies.
- If one Power Supply fails, ports configured as "priority ports" will continue to receive power. The low priority PoE ports may not get PoE or lose power.
- **Enhanced POE is supported** – up to 20 Watts.
- PoE+ will not be supported at FCS.

**QUESTION NO: 2**

Which of the following is not a supported PDI Help Desk function?

- A. design and configuration support
- B. technical product question
- C. implementation questions and support
- D. On site support
- E. RFP review

Answer: D

Explanation:

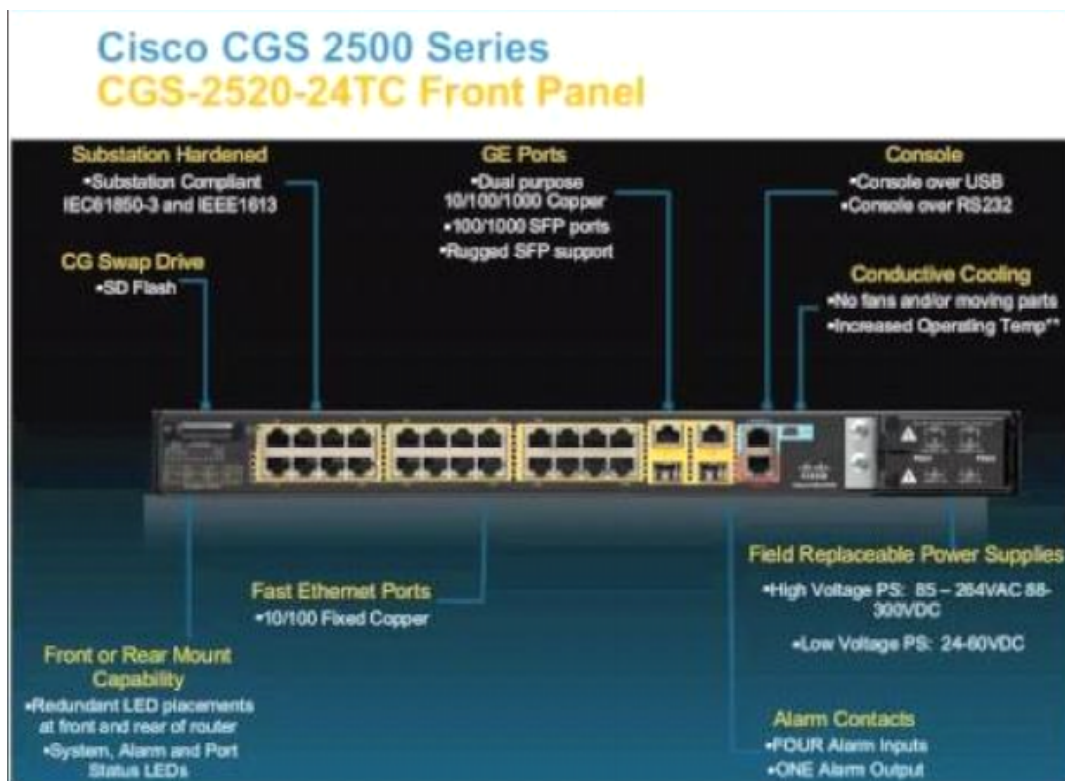
**QUESTION NO: 3**

Which function is available on the Cisco Series 2500 Connected Grid Switch?

- A. EnergyWise
- B. inputs and outputs for alarms
- C. GRWIC modules
- D. StackWise

Answer: B

Explanation: Explanation;



## Cisco CGS 2500 Series Alarm Contacts

CGS 2520 supports:

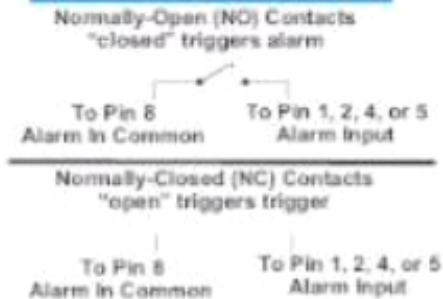
- Four External Alarm Inputs
- One form C output

Alarm Connection	RJ-45 Pin
Alarm 1 Input	1
Alarm 2 Input	2
Alarm Output Common	3
Alarm 3 input	4
Alarm 4 input	5
Alarm Output N/C	6
Alarm Output N/O	7
Alarm Input Common	8

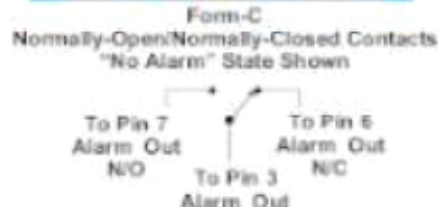


RJ-45 Alarm Connector  
on CGS 2520 Chassis

### Alarm Input Details



### Alarm Output Details



#### QUESTION NO: 4

Which of these describes the overall vision of the Cisco Smart Grid?

- A. Create a single infrastructure for Unified Communications from electrical generation plants to all primary and secondary substations.
- B. Integrate intelligent routing protocols into existing electrical grids.
- C. Sell existing Cisco IP-based products to be used from end-to-end in our utility customer smart grid deployments.
- D. Design and architect an end-to-end communications infrastructure integrated with the power.

**Answer: A**

**Explanation:**

#### QUESTION NO: 5

How many power supply slots are available on each Cisco CGR 2010 chassis?

- A. 1 slot
- B. 4 slots
- C. 2 slots
- D. No slots because all power is integrated over IP.

**Answer: C**

**Explanation:**

### QUESTION NO: 6

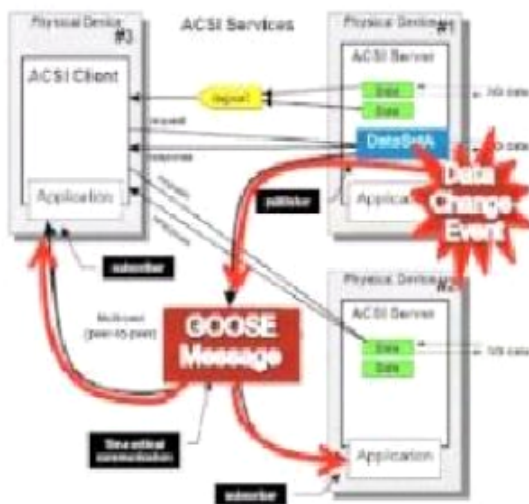
What is the correct time delay for a critical GOOSE Type-1 message?

- A. There is no specific time delay requirement.
- B. Fewer than 10 ms
- C. Less than 4 to 7 s
- D. Less than 3 to 10ms

**Answer: D**

**Explanation:**

## CGS 2500 Series GOOSE Messaging Overview



- GOOSE messaging is based on a **publisher / subscriber** model.
- GOOSE Type-1 messages are Time-critical (**delay < 3-10 ms**)  
For Example "Trip" Message
- In this Case, Physical Device#2 (PD2) and Physical Device#3 (PD3) have **subscribed** to DataSet#A on Physical Device#1 (PD1)- **Publisher**
- When the GOOSE control block is configured on PD1 to enable GOOSE messaging (See next slide for details) to monitor DataSet#A, an associated VLAN and Cos marking is also configured on PD1 (In addition to the Dest Multicast MAC address to be used).
- This VLAN and CoS Marking is used on the Network- switches to restrict the flooding of GOOSE traffic

### QUESTION NO: 7