

EXAM PREPARATION MATERIAL

Practice files designed to help you understand exam patterns, question styles and the overall assessment format.

IMPORTANT NOTE



Please note that these files may not be up to date. However, the questions will help you understand the exam format and typical question patterns.



Stay connected with our support team for the latest file updates and exam-related information.

Question: 1

A company is collecting data from several thousand machines globally. Which software component in the overall architecture is the next destination of the dataflow after the data has been gathered and normalized on the edge data software?

- A. relational database: MySQL
- B. historian database: influxDB
- C. message broker: Apache Kafka
- D. dashboard: Node.js web app

Answer: B

Question: 2

Which data visualization technique should be used to represent an important single metric on a dashboard?

- A. heatmap
- B. scatter plot
- C. gauge
- D. treemap

Answer: C

Question: 3

When trying to subscribe to an MQTT broker on the internet, the MQTT client is on a private subnet and must be NATed to reach the public broker.

What is the expected outcome when this configuration is in place?

- A. The client periodically reconnects to the default gateway.
- B. The client connects only once using the PENDING message to the broker.
- C. The client periodically reconnects to the broker over the NAT connection.
- D. The client connects only once using the CONNECT message to the broker.

Answer: D

Question: 4

Which two states are applications expected to be seen in when they are managed on Cisco I/Ox? (Choose two.)

- A. DEACTIVATED
- B. ACTIVATED
- C. ALLOWED
- D. STOPPED
- E. VALIDATED

Answer: BD

Question: 5

Which connector is southbound?

- A. horizontal connector
- B. cloud connector
- C. device connector
- D. universal connector

Answer: C

Question: 6

When constructing a Python script for data extraction using GMM APIs on a Cisco Kinetic Cloud platform, how should the API authentication be implemented?

- A. Generate the API keys once and edit the permissions as needed.
- B. Generate and use the API keys for the required access level from the Kinetic Cloud application.
- C. Use a complex username and password with 128-bit encryption.
- D. Use a complex username with an auto-generated password from the Kinetic Cloud application.

Answer: B

Question: 7

An IoT engineer is responsible for security at an organization. Humans and machines need to be allowed to access services like database or compute on AWS. The engineer decides to implement dynamic secrets. Which method helps to get this implementation accurate from a security point of view?

- A. Create a central secret system for humans and machine to obtain very short-lived dynamic secrets to access any service.
- B. Humans cannot be trusted, and each time they authenticate they should be issued with dynamic secrets. Machines can be trusted, and they can be issued with static credentials.
- C. Maintain a different service associated to secret systems to issue access.
- D. After a user is authenticated by any trusted system, the user can be trusted to use any service.

Answer: A

Question: 8

Which statement explains the correct position of a PLC within the CPwE architecture?

- A. PLCs are always part of Level 0 – process control.
- B. PLCs are part of Level 4 – site business planning.
- C. PLCs are part of Level 1 – basic control.

D. PLCs are placed at Level 2 – area supervisory control.

Answer: C

Question: 9

A sensor reads potentially critical data from an industrial device, but most of the data from the sensor is not critical information and does not change unless a critical event happens.

Which data work flow is appropriate for how the critical and non-critical data is processed?

- A. 1. Acquire sensor data.
2. Filter non-actionable data.
3. Perform action on data.
4. Send critical data and action performed on data to cloud for storing.
- B. 1. Acquire sensor data.
2. Send data to cloud for processing and to determine action.
3. Send required action back to edge for action completion.
4. Perform action on data.
- C. 1. Acquire sensor data.
2. Filter non-actionable data.
3. Perform action on data.
- D. 1. Acquire sensor data.
2. Perform action on data.
3. Send data and action performed on data to cloud for recording.

Answer: D

Question: 10

Refer to the exhibit.

FROM devhub-docker.cisco.com/iox-docker/ir800/base-rootfs as builder

RUN opkg update

RUN opkg install iox-toolchain

RUN mkdir -p /var/helloworld/

COPY helloworld.c /var/helloworld/

WORKDIR /var/helloworld/

RUN gcc helloworld.c -o helloworld

FROM devhub-docker.cisco.com/iox-docker/ir800/base-rootfs

RUN mkdir -p /var/helloworld/

COPY --from=builder /var/helloworld/helloworld /var/helloworld

RUN chmod +x /var/helloworld/helloworld

COPY init_app.sh /etc/init.d/

RUN chmod +x /etc/init.d/init_app.sh

RUN update-rc.d init_app.sh defaults

When a Docker image is built using this Dockerfile, which two statements are valid on Cisco IOX 1.8 and before? (Choose two.)

- A. It builds an image that can be executed on all Cisco platforms.
- B. It builds a Docker image that cannot be used directly on Cisco IOx.
- C. It compiles a "hello world" program in C.
- D. It creates two separate images.
- E. It builds an IOx package that can be deployed directly.

Answer: BC

Question: 11

When an RS232 device is connected to a Cisco IR829 router, the data collected is not being parsed correctly by the edge application.

Which two steps should be taken to troubleshoot the issue? (Choose two.)

- A. SSH access on the Cisco IR829 router must be enabled for IOx Guest OS.
- B. Communication mode must be set to half duplex over serial connection.
- C. Serial cable length should not exceed 1.5 meters.
- D. Ensure that communication parameters like baud rate and parity are set correctly.
- E. Set the cable connections based on the PIN layout from the sensor vendor.

Answer: DE

Question: 12

Refer to the exhibit.

```
"/Users/venv/bin/python" "/Users/Documents/Coding Projects/fkf3/main.py"
log: Sending CONNECT (u1, pl, wr0, wq0, wf0, cl, k60) client_id=b'python'
log: Sending SUBSCRIBE(do,m1) [(b'eschbornoffice/things/FCD6BD00001913F4/uplink', 0)]
log: Sending SUBSCRIBE(d0,m2) [(b'eschbornoffice/things/FCD6BD0000191405/uplink', 0)]
log: Sending SUBSCRIBE(d0,m3) [(b'eschbornoffice/things/FCD6BD00001913FC/uplink', 0)]
log: Sending SUBSCRIBE(d0,m4) [(b'eschbornoffice/things/FCD6BD00001913F2/uplink', 0)]
log: Received CONNACK (0, 0)
Result code 0
log: Received SUBACK
log: Received SUBACK
log: Received SUBACK
log: Received SUBACK
```

Which two statements about MQTT messaging are true? (Choose two.)

- A. Result code 5 means the connection is accepted; result code 0 means the connection is "refused, not authorized".
- B. Redundant ClientIDs are supported by MQTT brokers.
- C. MQTT does not support a "keep alive" functionality because it runs on top of TCP.
- D. Result code 0 means the connection is accepted; result code 5 means the connection is "refused, not authorized".
- E. Brokers can send the Last Will and Testament messages on behalf of the client.

Answer: DE

Question: 13

DRAG DROP

An application needs to calculate if the product meets a determined quality specification, activate an automation to remove poor quality products, and report detailed results back to the cloud. All data are captured from an application that is connected to a sensor. Using the SDK of the cloud provider, drag and drop the tasks that must be completed from the left to the right. Not all options are used.

code function for detection

quality specification of product

credentials for network and cloud operations

sensor function with sensor SDK

user interaction with the application

cloud function communication with cloud SDK

product removal function

Answer:

code function for detection

quality specification of product

sensor function with sensor SDK

cloud function communication with cloud SDK

product removal function

Question: 14

How does the Cisco router (IR) and switch (IE) portfolio support edge data services?

- A. Edge data services can be run and managed as containers using Cisco IOx.
- B. Edge data services can run only in virtual machines on a separate compute layer.
- C. Edge data services are aliases for IR/IE configuration services.
- D. Edge data services run as separate instances only on virtual machines.

Answer: C

Question: 15

Refer to the exhibit.

```
descriptor-schema-version: "2.4"
info:
  name: hello world
  description: "Hello world lxc type application"
  version: "1.0"
  author-link: "http://www.cisco.com"
  author-name: "Cisco Systems"
app:
  type: 
  cpuarch: x86_64
  resources:
    profile: custom
    cpu: 200
    memory: 64
    disk: 2

    network:
      interface-name: eth0
# Specify runtime and startup
startup:
  rootfs: rootfs.tar
  target: "/var/helloworld/helloworld"
```

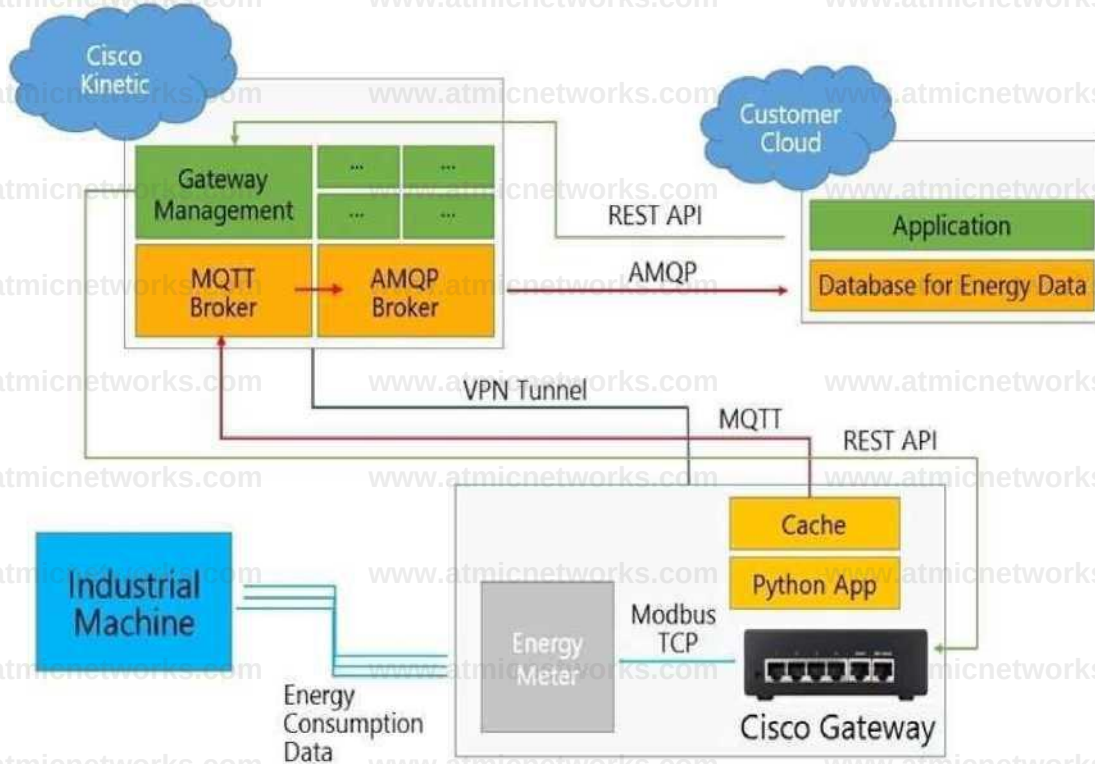
While troubleshooting an error on an application descriptor for a Docker app in Cisco IOx (package.yaml), the app type appears to be missing. Which app type must be added to the snippet to resolve the issue?

- A. paas
- B. docker-vm
- C. docker
- D. docker-app

Answer: C

Question: 16

Refer to the exhibit.



Which two statements about data flow are true? (Choose two.)

- A. Another AMQP broker should be implemented on the customer cloud.
- B. Instead of AMQP, MQTT should be used for compatibility issues in a cloud-to-cloud connection.
- C. A VPN tunnel is not necessary because the MQTT payload is encrypted by default.
- D. The gateway must stay constantly connected to the Kinetic cloud to avoid blank data sets, even when using caching functions.
- E. The Python application could use the paho-mqtt library.

Answer: BE

Question: 17

What is a major difference of MQTT in terms of design compared to AMQP?

- A. MQTT requires more bandwidth.
- B. MQTT has very low overhead.
- C. MQTT has more advanced routing features for messages.
- D. MQTT provides routing based on headers.

Answer: B

Question: 18

Which two statements define the mechanism for console access of the Guest Operating System from the Cisco IR829 router? (Choose two.)

- A. The Guest OS can be accessed by default on Telnet port 2070 from the Cisco IR829 console.
- B. The Guest OS console is available directly by the AUX port 3362 from the Cisco IR829 router.
- C. The Guest OS can be accessed directly using the console port on the Cisco IR829 router.
- D. The Guest OS can be accessed by initiating SSH from the Cisco IR829 console.
- E. The Guest OS console is available only when a static IP is configured on the host.

Answer: AD

Question: 19

DRAG DROP

An engineering team developed a solution that gathers data via a proprietary protocol (TCP/IP based) to a IR1101 gateway, which then sends the data to the cloud. Drag and drop the action steps from the left into the correct order on the right to get this solution to operate. Not all options are used.

The sensor is sending data to the cloud.

The sensor and IR1101 is locally installed (power, network connectivity).

The edge application is being installed on the IR1101.

The streaming payload is visible in Kinetic GMM dashboard.

A device twin is automatically created in the cloud.

IR1101 is claimed via API on Kinetic GMM.

Answer:

Question: 20

The environment for an Industrial IoT project in a large open pit mine is being scoped. The location has a large amount of dust and the device will be exposed to less than 1 meter of water temporarily.

When the edge device is being chosen, which Ingress protection rating must be used?

- A. IP37
- B. IP61
- C. IP67
- D. IP76

Answer: C

Question: 21

An IoT application has been built into the application CI/CD pipeline. The application needs credentials to access other applications, APIs, and cloud resources.

When should the credentials be inserted into the application using the CI/CD process?

- A. hard coded into your application code base
- B. during application runtime
- C. after application testing
- D. during application build time

The sensor and IR1101 is locally installed (power, network connectivity).

The edge application is being installed on the IR1101.

The streaming payload is visible in Kinetic GMM dashboard.

A device twin is automatically created in the cloud.

IR1101 is claimed via API on Kinetic GMM.

Answer: A

Question: 22

Which two statements about how to provision and manage data originators in a cloud environment are true? (Choose two.)

- A. The provisioning of digital identities is the responsibility of the data originators.
- B. Cloud providers offer services for automated device provisioning, which allows the lifecycle of the cloud-representation for data originators to be managed.
- C. Cloud providers offer application programming interfaces, which allow a programmatic provisioning of data originators.
- D. There is no need to provision and manage access for data originators in the cloud.
- E. The access to public clouds must be configured and managed manually.

Answer: CE

Question: 23

Refer to the exhibit.

```
FROM devhub-docker.cisco.com/iox-docker/ir800/base-rootfs:latest
RUN opkg update && opkg install python
COPY sample.py /usr/bin/sample.py
CMD /usr/bin/sample.py
```

Which line of code completes the Dockerfile?

- A. RUN chmod 777 /usr/bin/sample.py
- B. RUN chown root:root /usr/bin/sample.py
- C. WORKDIR /usr/bin
- D. USER root

Answer: A

Question: 24

A network is being configured for an Ethernet-connected sensor. The sensor fails to send data to the configured destination. The IP address of the sensor can be pinged from a laptop on the same subnet. When a different subnet is used, the sensor cannot be reached, but other clients on the same subnet are still accessible.

What are two reasons for the connectivity problem? (Choose two.)

- A. wrong DNS server on the sensor
- B. wrong subnet mask on your laptop

- C. wrong default gateway on the sensor
- D. wrong default gateway on your laptop
- E. wrong subnet mask on the sensor

Answer: CE

Question: 25

As part of an IoT project, an organization is developing an application that will share multiple clients using a REST API.

Based on the software development process, what are two valid technical activities that can be suggested to secure the REST API that is developed during the development of the software? (Choose two.)

- A. Respond to request failures in detail to allow users for easier troubleshooting.
- B. Implement HTTP whitelisting to only methods that are allowed.
- C. Implement and review audit logs for security-related events.
- D. Reject HTTP methods that are invalid with an error code 404.
- E. Implement physical firewalling and access control to the resources.

Answer: BD

Question: 26

Which two actions must be completed before starting the process of sending IoT data to the cloud via edge routers? (Choose two.)

- A. Measure the voltage, power rating, and quiescent current for the sensors that send data to the cloud.
- B. Gather the hardware (MAC) addresses of local and cloud routers to ensure low latency communication.
- C. Collect information about the CPU architecture in the cloud and edge to ensure that they match.
- D. Gather the interval, the volume, and the latency that the data must be provisioned with.
- E. Collect information about growth, required elasticity, and high availability of the provisioning process.

Answer: DE

Question: 27

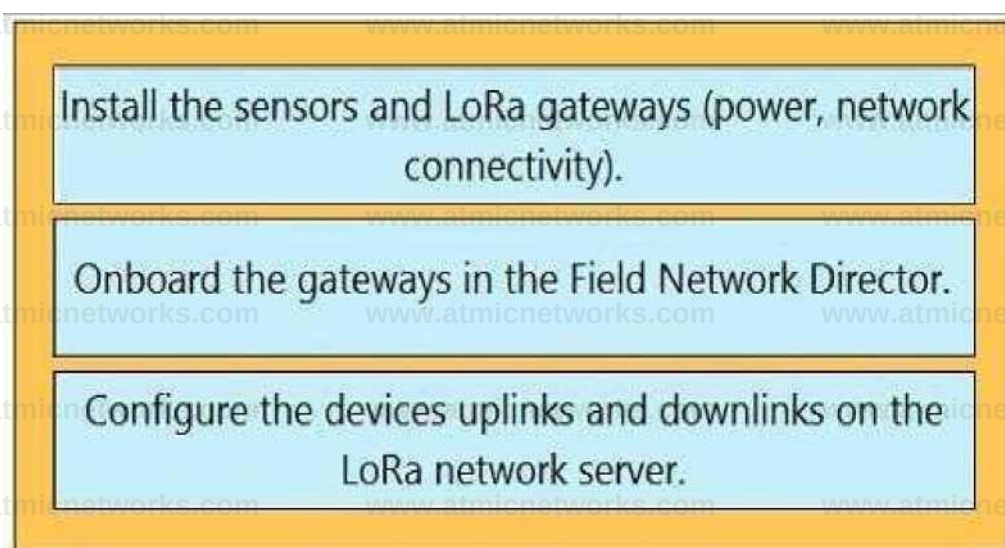
DRAG DROP

The network team of a large international airport is creating a sensor network on their site using the Cisco LoRaWAN solution. Drag and drop the actions from the left to right needed to implement this project. Not all options are used.

- Onboard the gateways in the Field Network Director.
- Set up a database and message broker.
- Configure the devices uplinks and downlinks on the LoRa network server.
- Install the sensors and LoRa gateways (power, network connectivity).
- Add the sensors using the DevDI, AppDI, and AppKey.



Answer:



Reference: https://www.cisco.com/c/en_in/solutions/internet-of-things/lorawan-solution.html#~stickynav=3

Question: 28

After an application is deployed, potential issues arise around connectivity. As part of the troubleshooting process, the IP address must be determined to ensure end-to-end communication. Which method provides the required details using the Cisco IOx CLI?

- A. `ioxclient application status <iox_application>`
- B. `ioxclient application metrics <iox_application>`
- C. `ioxclient application getconfig <iox_application>`
- D. `ioxclient application info <iox_application>`

Answer: D

Question: 29

Where are edge data services typically instantiated?

- A. at the edge of network
- B. in the cloud
- C. in the data center
- D. in a private cloud

Answer: A

Question: 30

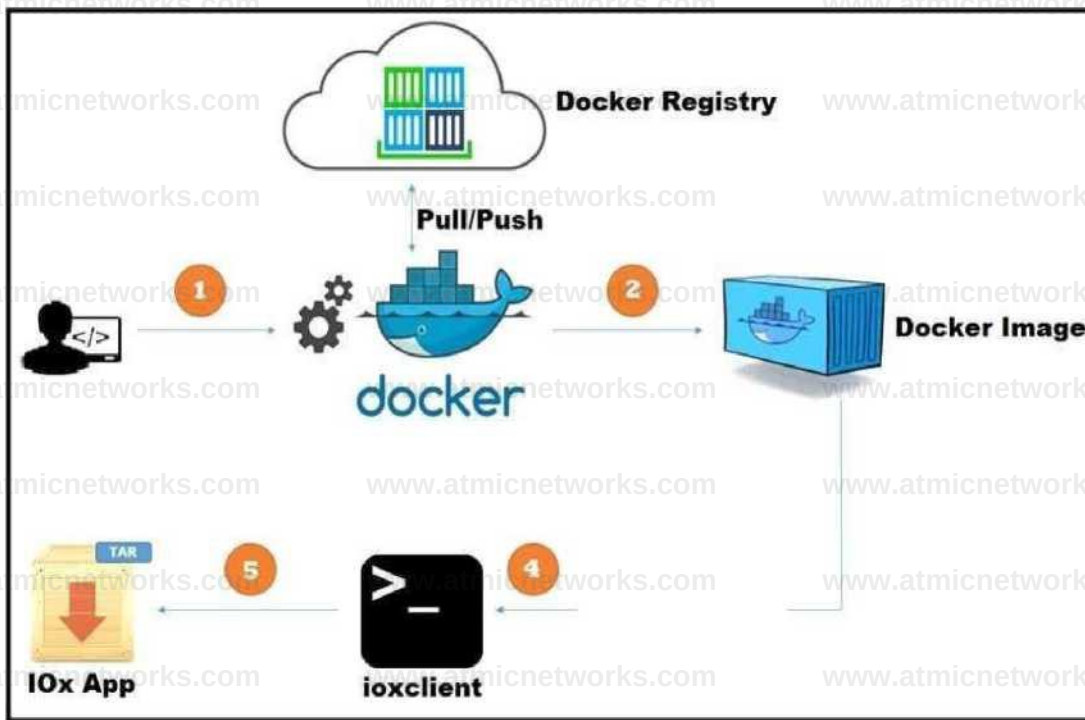
Which two commands inside a Docker container on a gateway help to troubleshoot why the compute performance of the device is slowing down? (Choose two.)

- A. show processes
- B. top
- C. wmic
- D. ps
- E. proc

Answer: BD

Question: 31

Refer to the exhibit.



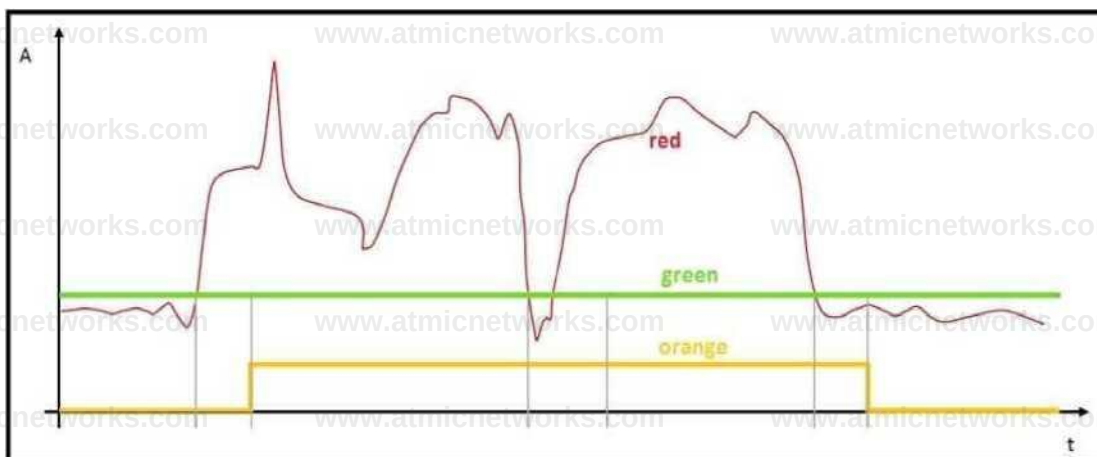
A new application has just been developed as a Docker container. What is the missing step for packaging the container ready for deployment in IOx?

- A. Pull/push the image to the Docker registry.
- B. Build the package.yaml files.
- C. Build the package.cert file to sign the app.
- D. Log in to device manager and load the application.

Answer: B

Question: 32

Refer to the exhibit.



The graph has been provided by the monitoring team to the IoT Engineer. The red line represents the consumption of energy from an industrial machine.

Which two pieces of information can be captured? (Choose two.)

- A. The green graph visualizes the mean value of the data points.
- B. The green graph visualizes if the electronic device is not in stand-by mode.
- C. The orange graph visualizes a boolean: power on/off.
- D. The orange graph contains more information than the red graph.

Answer: AC

Question: 33

Which two data sources are used with a visualization tool such as Grafana? (Choose two.)

- A. Microsoft Power BI
- B. Kibana
- C. InfluxDB
- D. Elasticsearch
- E. Tableau

Answer: CD

Question: 34

A customer is deploying sensors with Cisco IR829 routers in moving trucks to continuously monitor the health of engines using a cloud application.

Which data extraction and processing strategy is best suited in this environment?

- A. No need to store data locally, upload in real time to the cloud for processing.
- B. Generate local alerts and create reports at the edge, and upload to the cloud at the end of the day.
- C. Use the store and forward mechanism to upload the information at the earliest to cloud.
- D. Ensure that data is stored for a longer duration locally and upload to the cloud every week.

Answer: B

Question: 35

DRAG DROP

Drag and drop the Dockerfile instructions from the left onto the correct arguments on the right.

EXPOSE	alpine
ADD	apk update
WORKDIR	/opt/cisco
RUN	start.sh .
FROM	8000

Answer:

FROM
ADD
WORKDIR
RUN
EXPOSE

Question: 36

Refer to the exhibit.

```
log: Sending CONNECT (u1, p1, wr0, wq0, wf0, cl, k60) client_id=b'IR829_gateway'  
log: Sending PUBLISH (d0, q0, r0, m1), 'b'/v1/json/dev2app/modbussensor'', ... (23 bytes)  
log: Received CONNACK (0, 4)  
Connected with result code 4  
Disconnected with result code 0
```

Based on the MQTT client output, which action should be taken so that the connection to the broker can be established?

- A. Change the username/password.
- B. Open port 1883 on the network firewall.
- C. Change the IP address of the broker.
- D. Add the certificate.

Answer: A

Question: 37

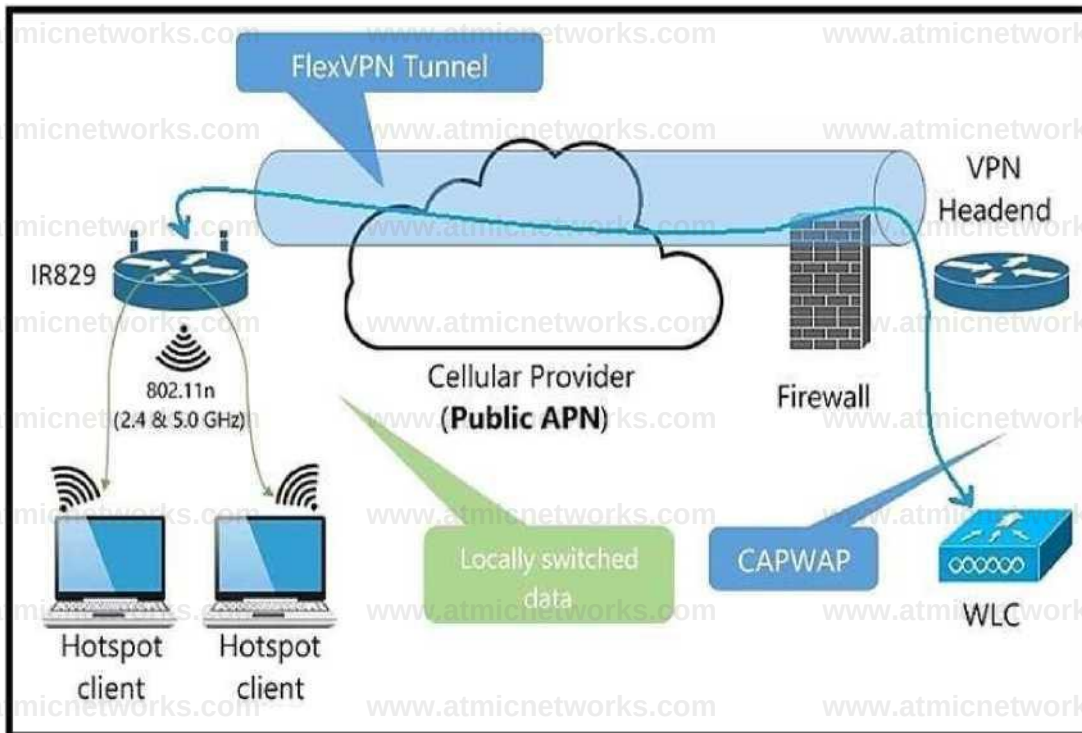
Which lightweight protocol is used to send data from the edge compute resources to the cloud?

- A. MQTT
- B. XMPP
- C. AMQP
- D. MT Connect

Answer: A

Question: 38

Refer to the exhibit.



Which protocol is used to make a FlexVPN connection from a Cisco IR829 router to a headend router?

- A. SSL
- B. IKEv2
- C. NAT
- D. IS-IS

Answer: B

Question: 39

Which method is used to gather data from a sensor?

- A. Configure the edge application to push data to the cloud.
- B. Set up a rendezvous point where the sensor and edge application meet.
- C. Set up a dedicate process for each sensor that grabs data.
- D. Pull data from the sensor.

Answer: A

Question: 40

DRAG DROP

Drag and drop the tasks from the left into the correct order on the right for transporting data from sensors to the cloud, in order to extract the machine data and use the cloud-based analytics for predictive maintenance.

Develop a dashboard for data consumption based on business needs.	
Remove duplicates and send filtered data to cloud.	
Extract information from OPC using custom drivers or DSIlink.	
Interface the machine sensors using OPC based middleware.	
Process real time critical alerts for immediate action.	

Answer:

Develop a dashboard for data consumption based on business needs.

Interface the machine sensors using OPC based middleware.

Extract information from OPC using custom drivers or DSlink.

Remove duplicates and send filtered data to cloud

Process real time critical alerts for immediate action

Question: 41

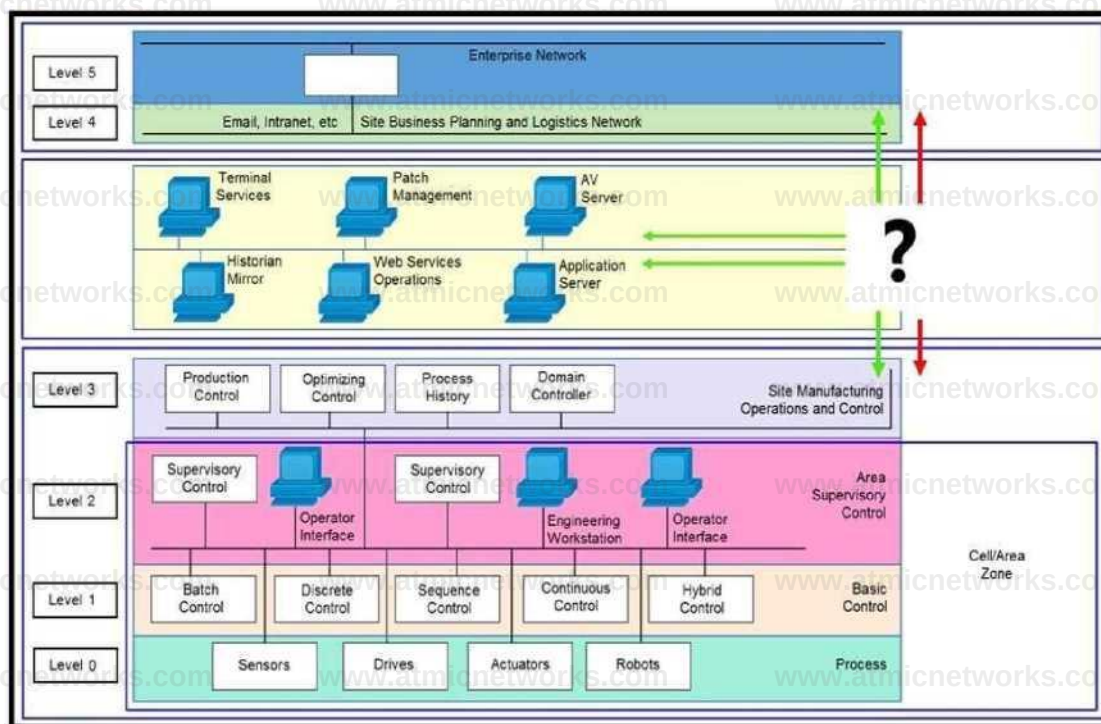
Which element ensures that PKI is used to establish the identity of IoT devices?

- A. unique device identifier
- B. encryption key
- C. air gap
- D. hashed routes

Answer: A

Question: 42

Refer to the exhibit.



Which product must be positioned where the “?” is placed to connect these different network levels?

- A. firewall
- B. switch
- C. router
- D. wireless access port

Answer: C

Question: 43

Which computer security concept is violated when a web server is written that uses the “root” account for all interactions with a Linux system?

- A. principle of least privilege
- B. PermitRootLogin
- C. certificate-based authentication
- D. RBAC

Answer: A

Question: 44

Which method defines the integration of Cisco Industrial Network Director with the Cisco identity Service Engine?

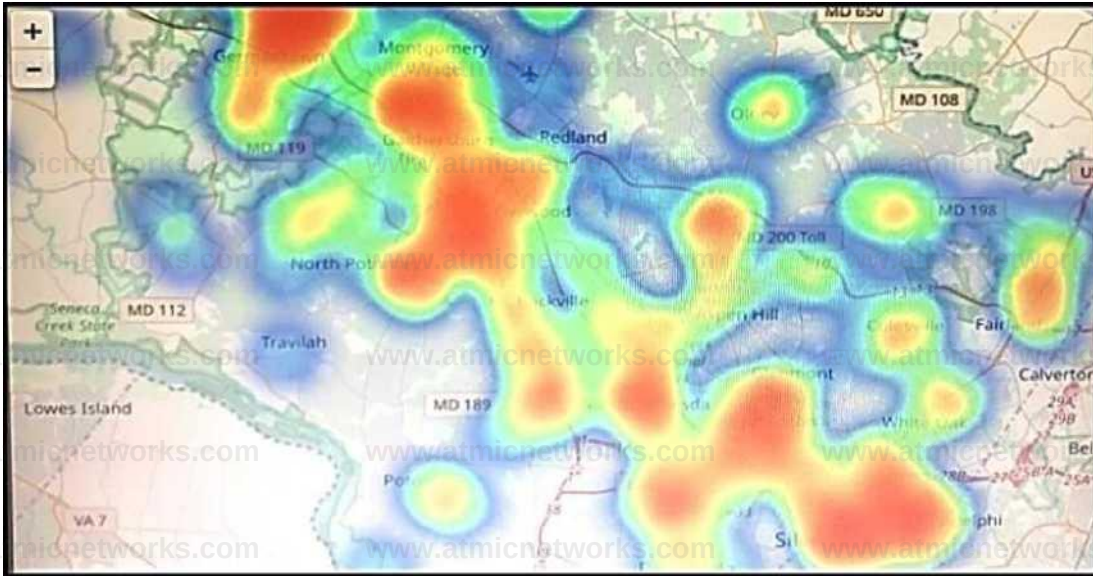
- A. Cisco IND integrates with ISE via Cisco Stealthwatch services.
- B. Cisco IND integrates with ISE using RADIUS services.
- C. Cisco IND is registered with pxGrid on ISE as a publisher.

D. Cisco IND pulls the profiling information from ISE.

Answer: C

Question: 45

Refer to the exhibit.



Which two statements are true? (Choose two.)

- A. That is a heatmap projected on top of a geographic map.
- B. That is a treemap projected on top of a geographic map.
- C. The color red usually stands for lower values and the color blue usually stands for higher values.
- D. Another suitable visualization technique for this image would be line graphs.
- E. The color blue usually stands for lower values and the color red usually stands for higher values.

Answer: AE

Question: 46

Refer to the exhibit.

```
{
  "set1": {
    "Source.IP": "192.168.0.52",
    "Source.Port": 443,
    "Destination.IP": "192.168.0.55",
    "Destination.Port": 44447,
    "Protocol": 6,
    "Timestamp": "07/10/201911:12:20",
    "Flow.Duration": "131",
    "Total.Fwd.Packets": "8"
  },
  "set2": {
    "Source.IP": "192.168.0.48",
    "Source.Port": 80,
    "Destination.IP": "192.168.0.49",
    "Destination.Port": 5000,
    "Protocol": 6,
    "Timestamp": "07/10/201911:12:20",
    "Flow.Duration": "246",
    "Total.Fwd.Packets": "21"
  },
  "set3": {
    "Source.IP": "192.168.5.50",
    "Source.Port": 8000,
    "Destination.IP": "10.0.0.91",
    "Destination.Port": 8000,
    "Protocol": 6,
    "Timestamp": "07/10/201911:12:20",
    "Flow.Duration": "567",
    "Total.Fwd.Packets": "321"
  },
  "set4": "Output shorted..."
}
```

The code snippet provides information about the packet captures within a network. How can the most used source IP addresses within a specific time be visualized?

- A. line graph
- B. bar histogram
- C. scatter plot
- D. heatmap

Answer: B

Question: 47

Which two security approaches help build a strong authentication scheme? (Choose two.)

- A. connection based on location
- B. session IDs accepted only from cookies
- C. maximum allowed connections
- D. user logout
- E. session logout because of inactivity

Answer: CE

Question: 48

An IOx application is installed via Local Manager. Every time the application is started, it instantly stops. Which troubleshooting steps should be taken?

- A. There is something wrong with the application code itself.
- B. Check the startup and endpoint parameters.
- C. Give the IOx application more CPU units.
- D. Check local IOx settings, especially the network settings.

Answer: C

Question: 49

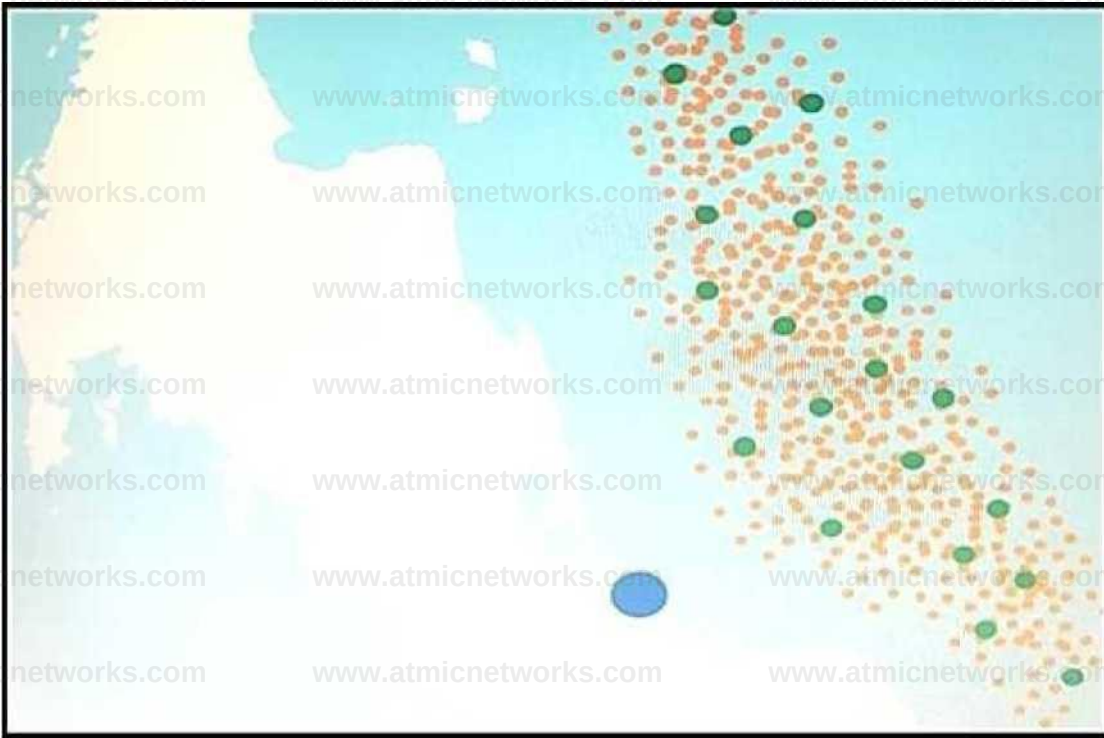
In a secure software development lifecycle process, what must be created as soon as the architecture is in place?

- A. integration plan
- B. test plan
- C. functional specification document
- D. threat modeling

Answer: C

Question: 50

Refer to the exhibit.



Approximately 4000 oil platforms, each with 400 sensors, are spread in the Gulf of Mexico and all of their data must come together into one dashboard. Which general architecture should be selected to connect them?

- A. 4-tier: sensor – edge device (Intel Atom CPU) – fog device (Intel Xeon CPU) – cloud
- B. 5-tier: intelligent sensor– edge device (Intel Atom CPU) – fog device (Intel Xeon CPU) – edge data center (Intel Xeon CPU)
- C. 2-tier: intelligent sensor – cloud
- D. 3-tier: sensor – edge device (Intel Atom CPU) – cloud

Answer: B

Reference: <https://www.itu.int/en/ITU-D/Regional-Presence/Africa/Documents/Internet%20of%20Things%20-%20Cisco%27s%20Vision%20and%20Approach.pdf>

Question: 51

An IoT engineer is working on a connected machines project.

Which two protocols must be used during the data provisioning process when data is sent from the shop floor IoT system to the customer's public cloud? (Choose two.)

- A. COAP
- B. Modbus TCP
- C. MQTT
- D. AMQP
- E. OPC-DA

Answer: CD

Question: 52

Mosquitto was installed correctly on the Cisco IR829 router as a Cisco IOx application. When the sensor is connected to the broker on the Cisco IR829 router with the default port, the connection is refused (Error Code 5).

Which action should be done to resolve the issue?

- A. Insert in the IOS config: `ip nat inside source static tcp <CAF IP> 1883 interface GigabitEthernet0 1883`
- B. Insert in the `package_config.ini` file under section ports: `tcp: ["8883"]`
- C. Use the correct username and password.
- D. Insert in the `package.yaml` file under section ports: `tcp: ["1883"]`

Answer: C

Question: 53

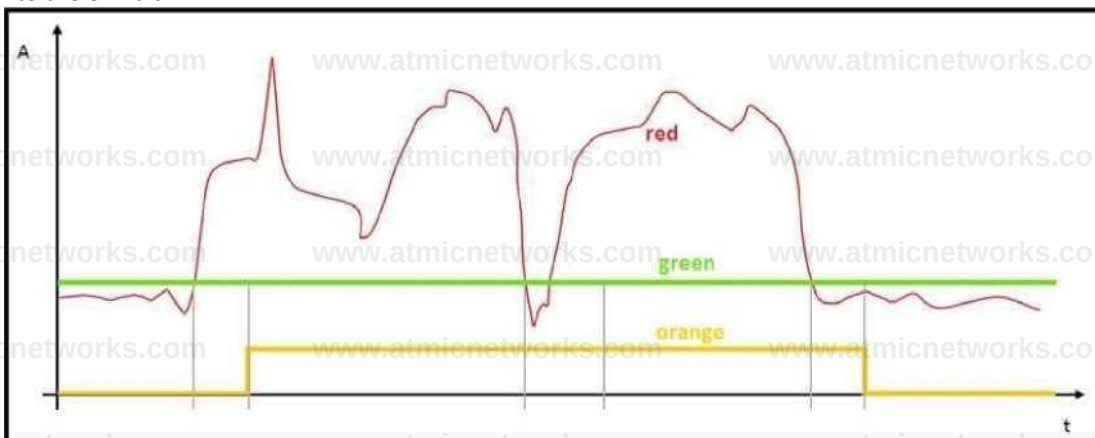
What are two functionalities of edge data services? (Choose two.)

- A. creating a machine learning data model
- B. supporting many interfaces and APIs
- C. applying advanced data analytics
- D. filtering, normalizing and aggregating data
- E. saving data for a prolonged time period

Answer: DE

Question: 54

Refer to the exhibit.



The red line represents the energy consumption of an industrial machine. Which two statements about the graphs are true? (Choose two.)

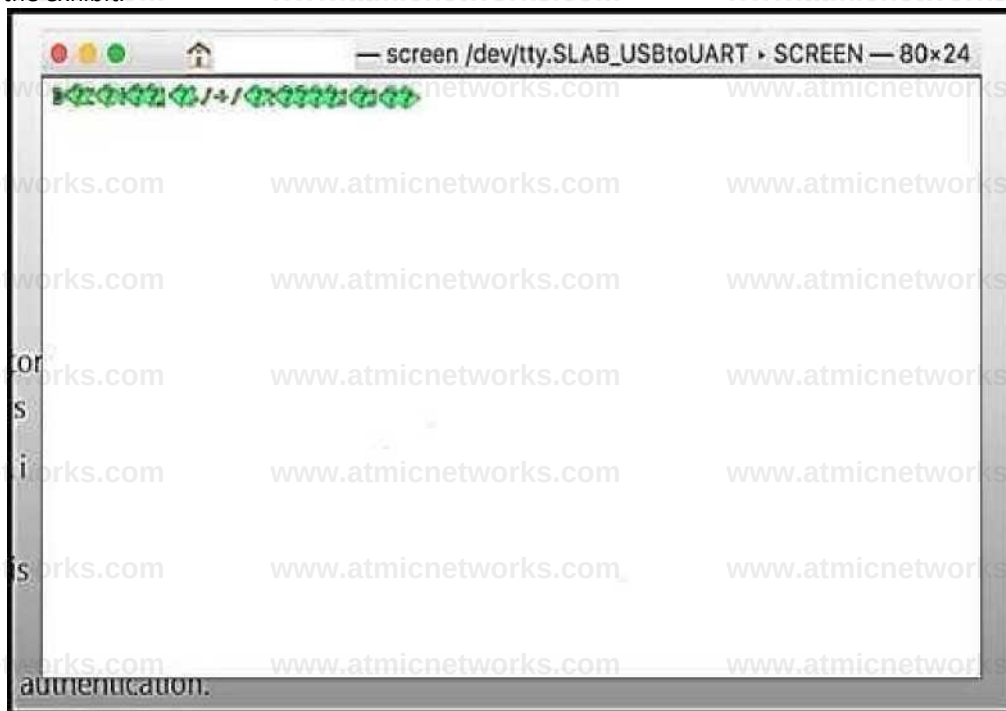
- A. The orange graph is expected to drop to zero for a brief period around the midpoint on the x axis.
- B. The red graph contains the raw data points.

- C. The green graph is the mean value of the data points.
- D. The green graph does not give us any valuable information.
- E. The orange graph has three values on the y-axis.

Answer: BC

Question: 55

Refer to the exhibit.



When a laptop is connected to a device via a serial connection, which action makes the output readable?

- A. Change the baudrate in the connection settings.
- B. Reboot the device in case a firmware error is the issue.
- C. Change the power level of the device.
- D. Change the unicode settings to UTF-8.

Answer: A

Question: 56

Which action should be taken when a southbound device is not connecting?

- A. Verify the gateway link status.
- B. Review the edge application logs.
- C. Verify the sensor status.
- D. Redeploy the edge application.

Answer: A

Question: 57

Refer to the exhibit.

```
import requests
import time

api_token = "riQdW922bt5 . zNgsYmKIgjg5AEPxGe-nNFZnJzn9n_Wv_-gAHY"
organization_id = 900
api_url_base = "https://eu.ciscokinetix.io/api/v2/"
headers = {"Content-Type": "application/json", "Authorization": "Token {}".format(api_token)}

r = requests.get(api_url_base+"organizations/{}/gateways".format(organization_id), headers=headers)

if r.status_code == requests.codes.ok:
    output = r.json()
else:
    print("Error {}: Message: {}".format(r.status_code, r.content))

Error 401. Message: b'{"error_code": "invalid_api_token", "errors": ["Invalid API token, authentication failure."]}
```

The code and the error message that are received when the code is run is presented. What causes issues authenticating with Cisco GMM API using the web-generated API key?

- A. firewall that blocks authentication ports
- B. incorrect username and password
- C. incorrect GMM Cluster selection
- D. incorrect key size and data encryption

Answer: B

Question: 58

As part of an IoT project, an organization is developing an edge application that will run on a gateway to securely transmit sensor information it receives into an IoT cloud. Based on the Agile software development lifecycle, the development team is planning to implement a CI/CD pipeline.

Which two methods should be suggested to make the software development lifecycle more secure during the implementation and testing? (Choose two.)

- A. Perform automated code reviews prior to deployment.
- B. Implement auto-provisioning security inspection for the code.
- C. Perform on-going penetration testing on the system.
- D. Perform a GAP analysis on current security activities and policies.
- E. Train members of the team in a secure software development lifecycle methodology such as OWASP.

Answer: DE

Question: 59

Which command is used to package a Docker-style Cisco IOx app using ioxclient?

- A. ioxclient docker create helloworld:1.0.
- B. ioxclient docker-app helloworld:1.0.

- C. ioxclient docker package helloworld:1.0.
- D. ioxclient docker helloworld:1.0.

Answer: C

Question: 60

Which data visualization technique should be used to represent an important single metric on a dashboard?

- A. heatmap
- B. scatter plot
- C. gauge
- D. treemap

Answer: C