## Certified Heroku Architecture Designer

**1.** Universal Containers needs to write their Heroku application's logs to two destinations: an on-premise Syslog log server and a cloud analytics provider that ingests logs using an HTTPS endpoint.

What should an Architect recommend in this scenario?

- A. Publish all logs to Apache Kafka on Heroku, and create a separate app that consumes and distributes log messages.
- B. Write all logs to Heroku Redis as a buffer and use an add-on to send them to both destinations.
- C. Add a logging library to the application source that sends all logs directly to both destinations.
- D. Write all logs to stdout, and configure a separate log drain for each destination.

## Answer(s): D

**2.** A hospital is planning to rewrite its on-premise patient registration system. Their current system is HIPAA-compliant as well as ISO 27018-compliant. They need to maintain these same certification levels after the rewrite. Their new app also needs to sync PII (personally identifiable information) data with their Salesforce org.

What Heroku Enterprise solutions should an Architect propose?

- A. Build the app in a Shield Private Space, with a Shield Heroku Postgres database, and use Apache Kafka on Heroku to stream from the Salesforce org.
- B. Build the app in the Common Runtime, use a Heroku Postgres database, and use Heroku Connect to sync to Salesforce.
- C. Build the app in a Shield Private Space, with a Shield Heroku Postgres database, and use Shield Heroku Connect to sync to Salesforce.
- D. Build the app in a Private Space with a Private Heroku Postgres database, and use Heroku Connect to sync to Salesforce.

| <b>3.</b> A client is creating a new API application. The app should only be accessible from other apps that they deploy to Heroku. Also, traffic between the other apps and the API should not transit the public internet.  Which solution should an Architect recommend to meet these requirements? |
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| A. Create the application in a Private Space with default options.   |
| B. Create the application in a Private Space and restrict the application's set of trusted IP ranges.  |
| C. Create the application with Internal Routing enabled, in a Private Space.   |
| D. Create the application in a Shield Private Space to enforce stricter requirements for TLS termination.  |
| Answer(s): B   |
| <b>4.</b> A client has data in a production Heroku Postgres database, and needs to quickly get access to a subset of that data for reporting needs.  Which two features does Heroku Dataclips provide to enable this? (Choose two.)  |
| ☐ A. JSON export of query results, with CORS support   |
| ☐ B. CSV export of query results   |
| C. A simple REST API access to query results   |
| D. Postgres dump file of query results   |
| Answer(s): AB  |
| 5. Which three items are required to successfully set up Single Sign-on (SSO) services with Heroku? (Choose three.)  |

 $\hfill \Box$  A. An identity provider with built-in support for Heroku

Answer(s): C

| ☐ B. A Heroku Enterprise Team  |
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| C. An existing Heroku account for each user  |
| D. At least one valid SSO certificate  |
| E. Administrative permissions on the selected identity provider  |
| Answer(s): ABE   |
| 6. Universal Containers intends to build an app which will accept card payments. The app also needs to store, process, and transmit cardholder data.  Which Heroku architecture should an Architect recommend? |
| A. Common Runtime with secure, isolated containers for running the app's code.   |
| B. A Private Space restricted to a set of trusted IP ranges.   |
| C. A Shield Private Space with a Shield Postgres add-on.   |
| D. A Private Space with Internal Routing enabled on the app.   |
| Answer(s): C   |
| 7. A client wants to create a secure network connection between Heroku applications running in a Private Space and an AWS VPC. Which Heroku feature should an Architect recommend to create the connection?    |
| A. Internal Routing  |
| B. Private Space Peering   |
| C. Private Space VPN connections   |
| D. Heroku Connect  |

| Answer(s): C   |  |  |
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| <b>8.</b> A client wants to add CPU-intensive video processing functionality to their Heroku web application. Which two strategies should an Architect recommend for implementing this functionality? (Choose two.)  |  |  |
| ☐ A. Add a new process type for worker dynos that pull video processing jobs from a queue.   |  |  |
| ☐ B. Attach a video processing add-on from the Heroku Elements Marketplace to the application.   |  |  |
| C. Delegate video processing tasks to the app's staging version to remove load from the production app. D. Divide each video processing task across multiple web dynos to mitigate added CPU load.   |  |  |
| Answer(s): A B   |  |  |
| <b>9.</b> Universal Containers has a Heroku app that uses several third-party add-ons. They now need to enforce data privacy and be compliant with General Data Protection Regulation (GDPR). What should an Architect advise UC regarding data residency in this scenario?        |  |  |
| A. Heroku does not control where add-on providers store data.  |  |  |
| B. Heroku support can configure add-ons for specific data residency needs.   |  |  |
| C. Heroku guarantees the physical location of its control surface APIs.  |  |  |
| D. Data residency for add-ons is covered under Salesforce's GDPR compliance.   |  |  |
| Answer(s): B   |  |  |
| 10. An app uses a queue of worker dynos to perform complex image processing, but the worker dynos are occasionally running out of memory when performing the processing. All of their dynos are currently standard-1x dynos.  What should an Architect recommend in this scenario? |  |  |
| A. Add additional worker dynos.  |  |  |
| B. Break up the image processing across multiple dynos.  |  |  |

|  | Private Space.   |
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| D. Change the type of o  | dynos to standard-2x.  |
| <b>Answer(s):</b> D  |  |
| Platform (GCP).  | se Heroku to build a data bridge between Salesforce and Google Cloud<br>Heroku features should an Architect recommend to secure the connection<br>GCP? |
| A. Heroku Shield Privat  | te Spaces and Heroku Shield Connect  |
| B. Heroku Private Spac   | ces and Private Space VPN Connections  |
| C. Heroku Private Spac   | ces and Private Space Peering  |
| D. Heroku Shield Priva   | te Spaces and Internal Routing   |
| Answer(s): A   |  |
| <b>12.</b> Part of a client's de   | esign is the ability to easily share between two applications running on   |
|  | an Architect recommend?  |
| Heroku. What should a  | an Architect recommend?  age add-on, such as Heroku Postgres, to both applications.  |
| Heroku. What should a  |  |
| Heroku. What should a  A. Attach a single stora  B. Create Foreign Data  | age add-on, such as Heroku Postgres, to both applications.   |
| A. Attach a single stora  B. Create Foreign Data  C. Provision Heroku Co | age add-on, such as Heroku Postgres, to both applications.  a Wrappers to expose the tables from one database to another.                              |

customers to interact with their healthcare records. The marketing application must be able to

| scale up within seconds in response to traffic spikes. The client wants to be able to deploy each of these applications to the U.S. East Coast and EMEA.  |
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| Which applications should be deployed into which Heroku runtime?  |
| A. The marketing application into Private Spaces; customer service applications into Shield Private Spaces  |
| B. The marketing application into the Common Runtime; customer service applications into Shield Private Spaces  |
| C. The marketing application into the Common Runtime; customer service applications into Private Spaces   |
| D. The marketing application into Private Spaces; customer service applications into separate Private Spaces  |
| Answer(s): A  |
| 14. For which two use cases should an Architect recommend using Heroku Redis? (Choose two.)   |
| A. Providing long-term data warehousing   |
| ☐ B. Adding jobs to a queue   |
| C. Providing a data cache layer   |
| D. Querying relational data   |
| Answer(s): A D  |
| 15. Universal Containers experienced an outage with their production Heroku Postgres database due to a fault with the underlying infrastructure. The database was unavailable for an hour. The database is on the Standard-0 plan.  Which two actions should an Architect recommend to mitigate such database failures and outages in the future? (Choose two.) |
| ☐ A. Create a follower database that uses the same plan as the leader.  |

| ☐ B. Migrate the database to a Premium-tier plan.   |
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| C. Migrate the database to a larger Standard-tier plan.   |
| ☐ D. Create a fork of the database that uses the same plan as the leader.   |
| Answer(s): A C  |
| <b>16.</b> A web application on Heroku wants to surface Salesforce data. All users of the web application will:   |
| 1) Authenticate using SSO with Salesforce.  |
| 2) Have user records in Salesforce. What architecture should be recommended in order to maintain the Salesforce security model already in place?  |
| A. Use Heroku Connect to sync the Salesforce data and Salesforce security model to Heroku Postgres.   |
| B. Have the application query Salesforce data and the security model directly using a cached admin credential.  |
| C. Use Heroku Connect, with a per-user authentication model, to sync the Salesforce data to Heroku Postgres.  |
| D. Have the application query Salesforce data directly through the Salesforce APIs as the running user.   |
| Answer(s): A  |
| 17. A client wants to create a scalable set of microservices that communicate with each other, where multiple microservices have a public REST API.  Which architecture strategy allows this on Heroku? |
| A. Each microservice is a separate Heroku app. The microservices communicate by using Apache Kafka as a message bus.  |
| B. Each microservice is a separate process type in a single Heroku app. The microservices communicate by using Redis as a message bus.  |

- C. Each microservice is a separate private space. The microservices communicate by using DNS Service Discovery.
- D. Each microservice is a separate process in a single Heroku app. The microservices communicate by using shared memory.

## Answer(s): C

**18.** Universal Containers has a Heroku Private Space with a VPN connection to their on-premise network. They want their remote employees to be able to access their Heroku applications using a VPN connection only.

Which solution should an Architect recommend?

- A. Clone the Heroku applications to a second Private Space, and configure its VPN for remote employees.
- B. Enable remote employees to VPN into the company's on-premise network.
- C. Configure a second VPN connection for the Private Space that remote employees can use.
- D. Add all remote employees to an Enterprise Team, and configure it to connect to the Private Space via SSO.

## Answer(s): C

**19.** Universal Containers (UC) has configured SSO for their Heroku Enterprise Team using an identity provider (IdP).

When a new employee joins the company, how should their Heroku account be created?

- A. A Heroku account is created for the employee automatically the first time they log in to Heroku via SSO.
- B. The employee should create a new Heroku account with the exact email address listed in their IdP record.
- C. No account creation is required, because all SSO users in a particular Enterprise Team are associated with a single Heroku account.

| D. An administrator of the Enterprise Team creates the Heroku account with the exact email address listed in the employee's IdP record.  |
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| Answer(s): A   |
| <b>20.</b> A client wants to use Heroku Connect to sync data bidirectionally between a Salesforce org and a Heroku Postgres database.  In this scenario, which two are advantages to setting a custom External Identifier field in the Heroku Connect mapping? (Choose two.) |
| ☐ A. External IDs simplify the mapping of polymorphic relationships in the Salesforce org.   |
| ☐ B. External IDs improve speed when inserting multiple related objects.   |
| C. External IDs prevent the creation of orphaned duplicates in Heroku Postgres.  |
| D. External IDs are required to enable bidirectional synchronization.  |
| Answer(s): C D   |
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