

100

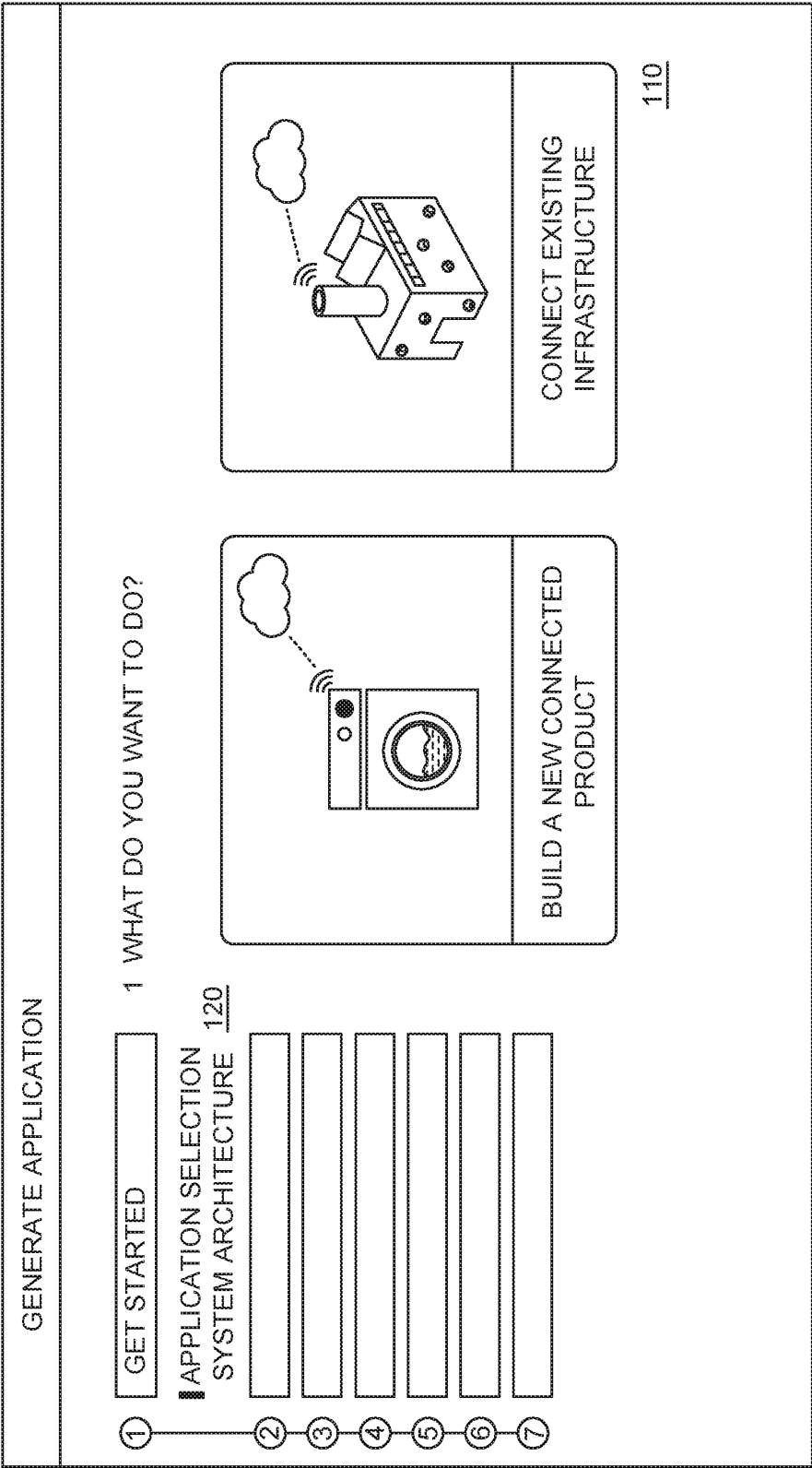


FIG. 1

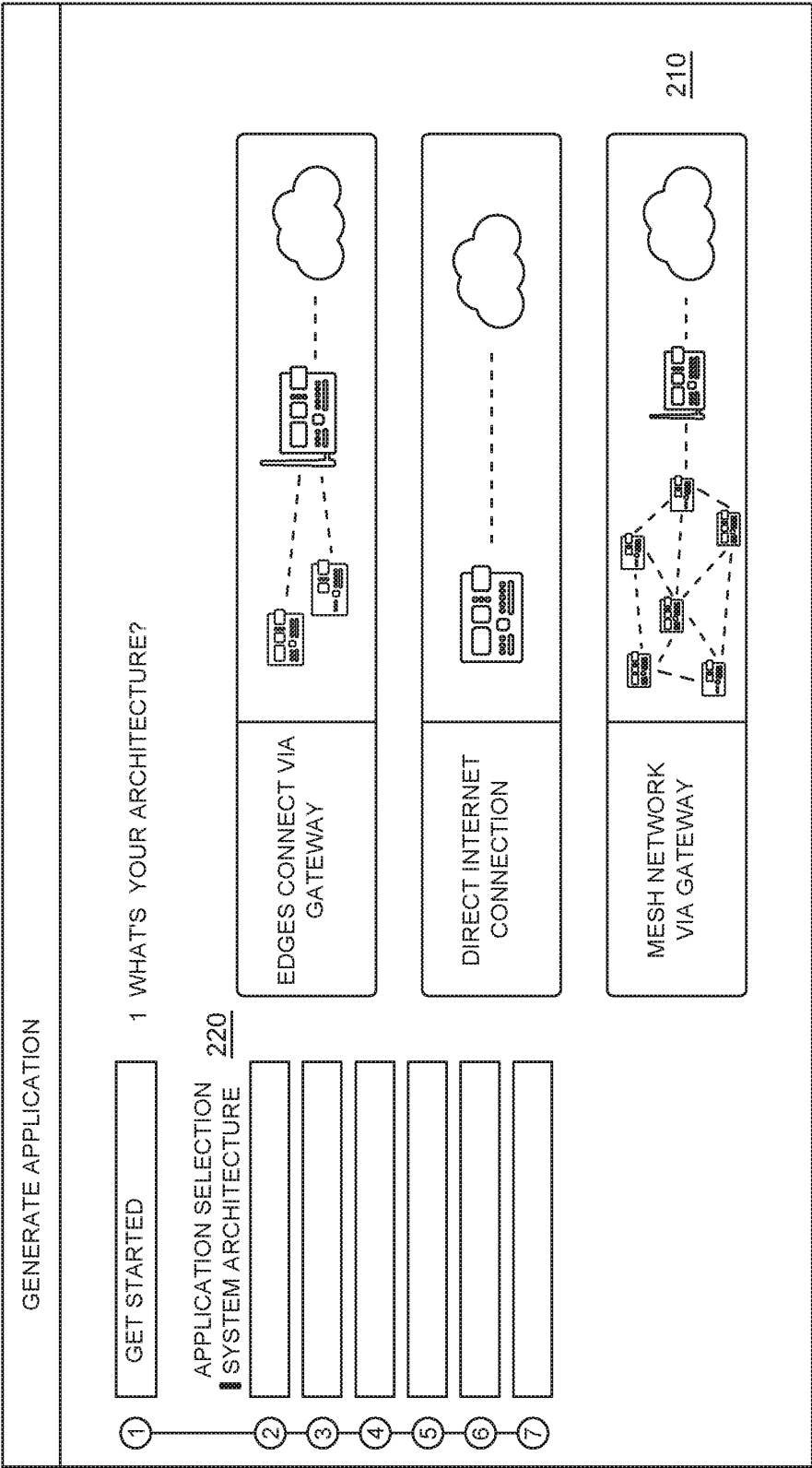


FIG. 2

GENERATE APPLICATION

1

2

3

4

5

6

7

8

9

10

GET STARTED

GATEWAY

SENSORS & ACTUATORS

POWER

RULES & NOTIFICATIONS

DATA & PREDICTIONS

SCALING

GENERATE CODE

DEPLOY & USE

SHARE

320

SET UP YOUR GATEWAY

GATEWAY HARDWARE

WHAT TYPE OF GATEWAY ARE YOU USING?

GATEWAY MODEL A

WIFI & ETHERNET ✓

IOT GATEWAY MODEL B

WIFI & ETHERNET

OTHER GATEWAY DEVICE

WIFI & ETHERNET

GATEWAY OS

LINUX

GATEWAY LOCATION

WHERE WILL YOUR GATEWAY BE LOCATED?

USE LAT/LONG

GATEWAY NAME

GIVE YOUR GATEWAY A NAME

NEXT >

310

FIG. 3

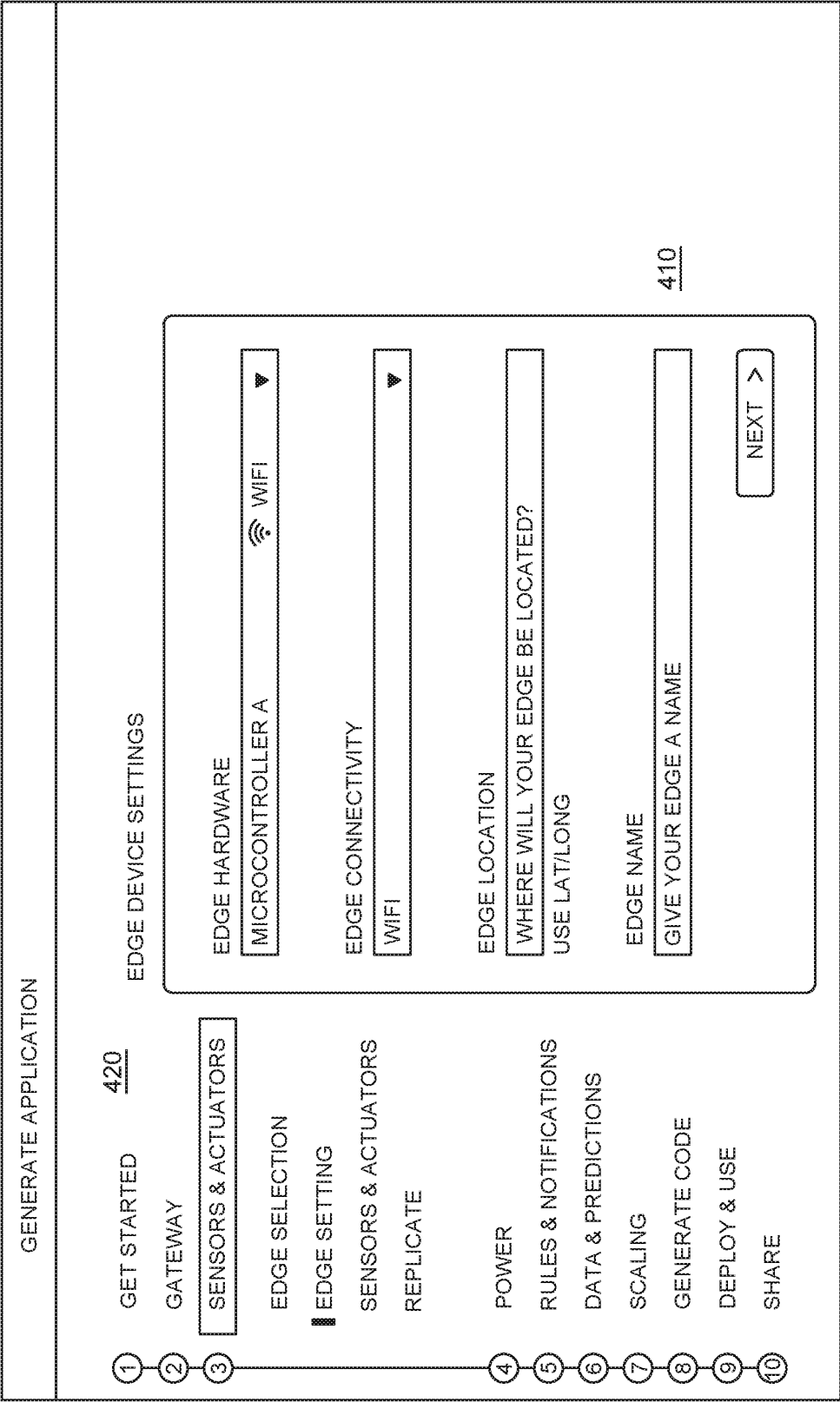


FIG. 4A

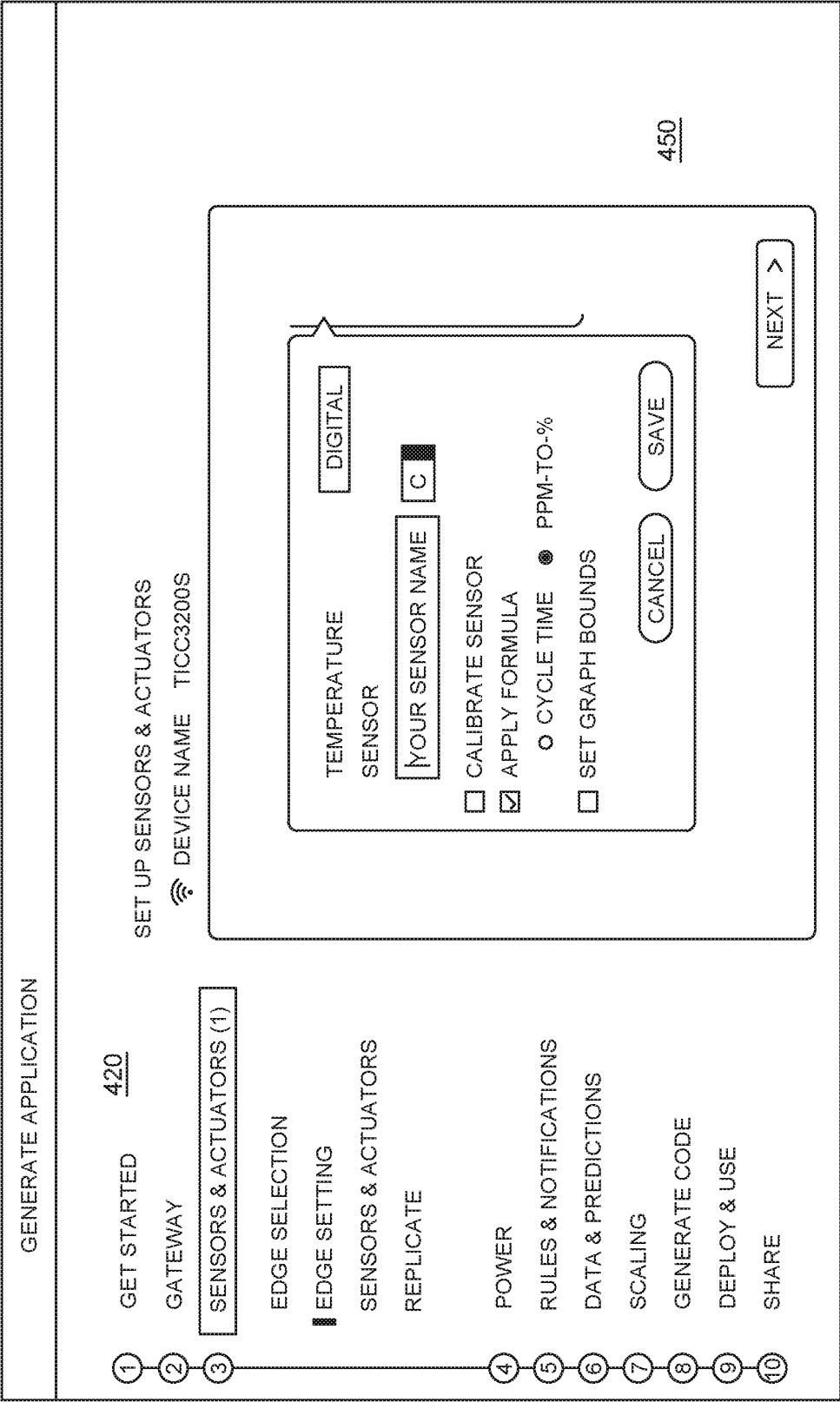


FIG. 4B

GENERATE APPLICATION

1

GET STARTED

2

GATEWAY

3

SENSORS & ACTUATORS (1)

4

POWER

5

RULES & NOTIFICATIONS

6

DATA & PREDICTIONS

7

SCALING

8

GENERATE CODE

9

DEPLOY & USE

10

SHARE

POWER SETTINGS

HOW ARE YOUR EDGES AND GATEWAYS POWERED?

GATEWAY POWER

MYGATEWAYNAME

←→

RASPBERRY PI LINUX

WIRED POWER

EDGE POWER

☐ ALL EDGES POWERED BY

513

MYEDGEDEVICE1 (17)

📶

TICC3200S

WIRED POWER

MYEDGEWITHLONGERNAME2

📶

TICC3200S

WIRED POWER

MYOTHEREDGE3

📶

TICC3200S

WIRED POWER

512

510

NEXT >

FIG. 5

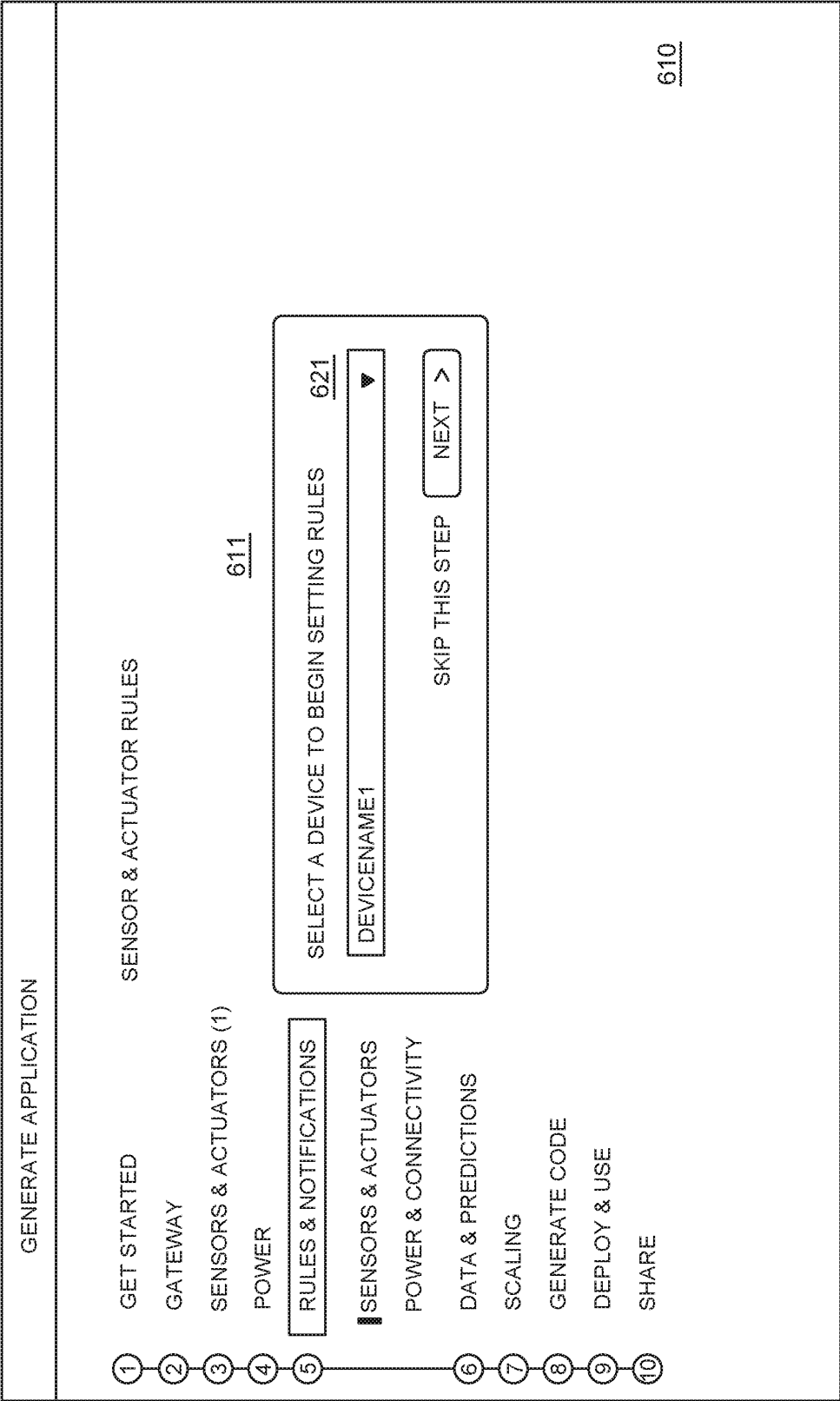


FIG. 6A

GENERATE APPLICATION

1

GET STARTED

2

GATEWAY

3

SENSORS & ACTUATORS (1)

4

POWER

5

RULES & NOTIFICATIONS

6

SENSORS & ACTUATORS

7

POWER & CONNECTIVITY

8

DATA & PREDICTIONS

9

SCALING

10

GENERATE CODE

11

DEPLOY & USE

12

SHARE

SENSOR & ACTUATOR RULES

CREATING RULE FOR DEVICENAME

WHAT ARE YOUR RULE CONDITIONS?

IF MYTEMPSENSOR ▼ IS < ▼ 80 F

⊕ EXTEND 623

WHAT SHOULD HAPPEN WHEN YOUR RULE TRIGGERS?

○ CONTROL ACTUATOR ○ SEND EMAIL ○ SEND SMS

RECIPIENTS

john@doe.com,

WHAT IS THE RULE SCHEDULE?

○ ALWAYS ON ● CUSTOM SCHEDULE

YOUR RULE WILL BE ACTIVE DURING THE HOURS AND DAYS BELOW.

HOURS

00:00 ▼ - 00:00 ▼

DAYS

GMT-05:00 EASTERN TIME ▼

M T W T F S S

⊕ SET A SCHEDULE FOR EACH RECIPIENT

FINALLY, NAME YOUR RULE ⊕ ADD DESCRIPTION

RULE NAME

CANCEL SAVE

FIG. 6B

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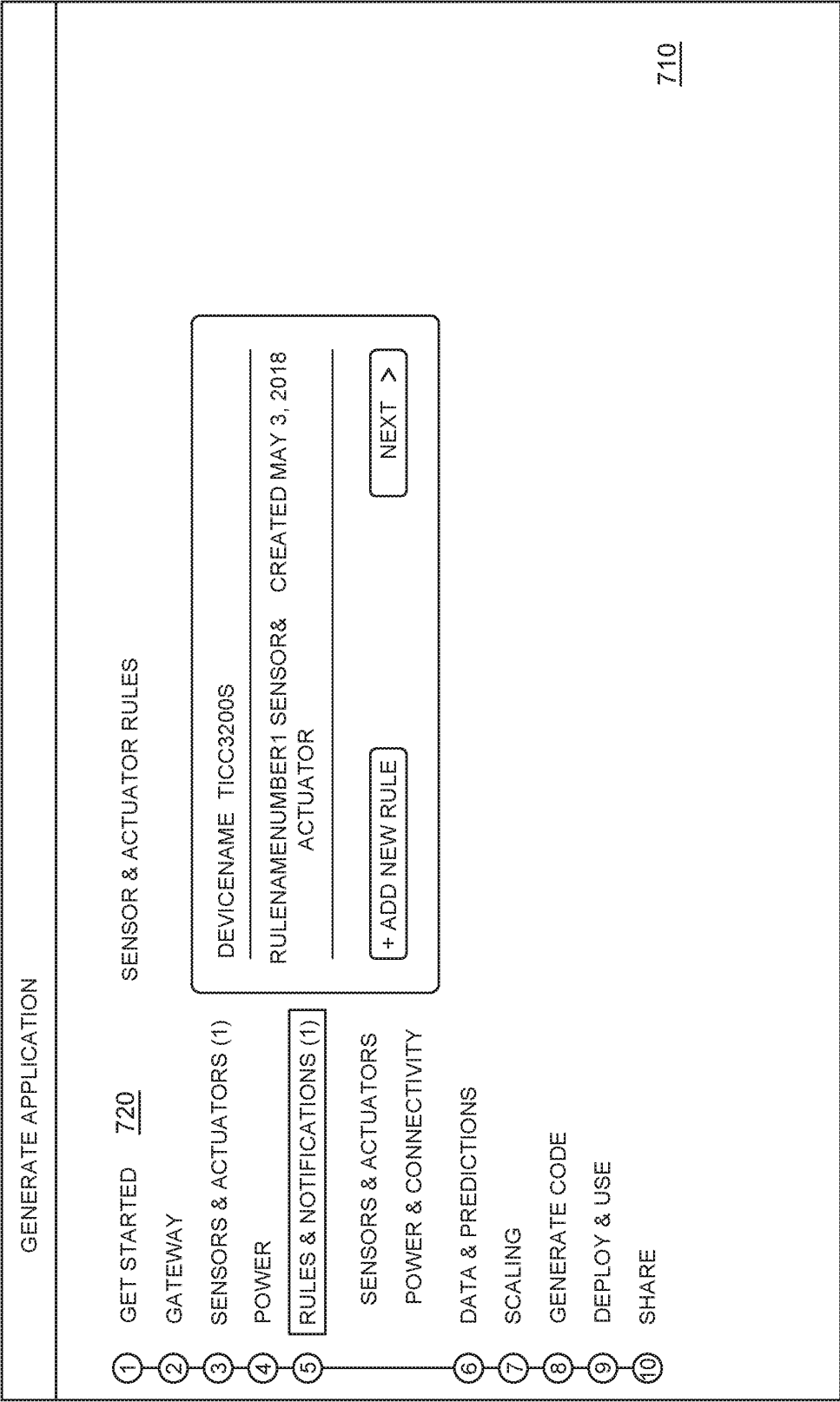


FIG. 7

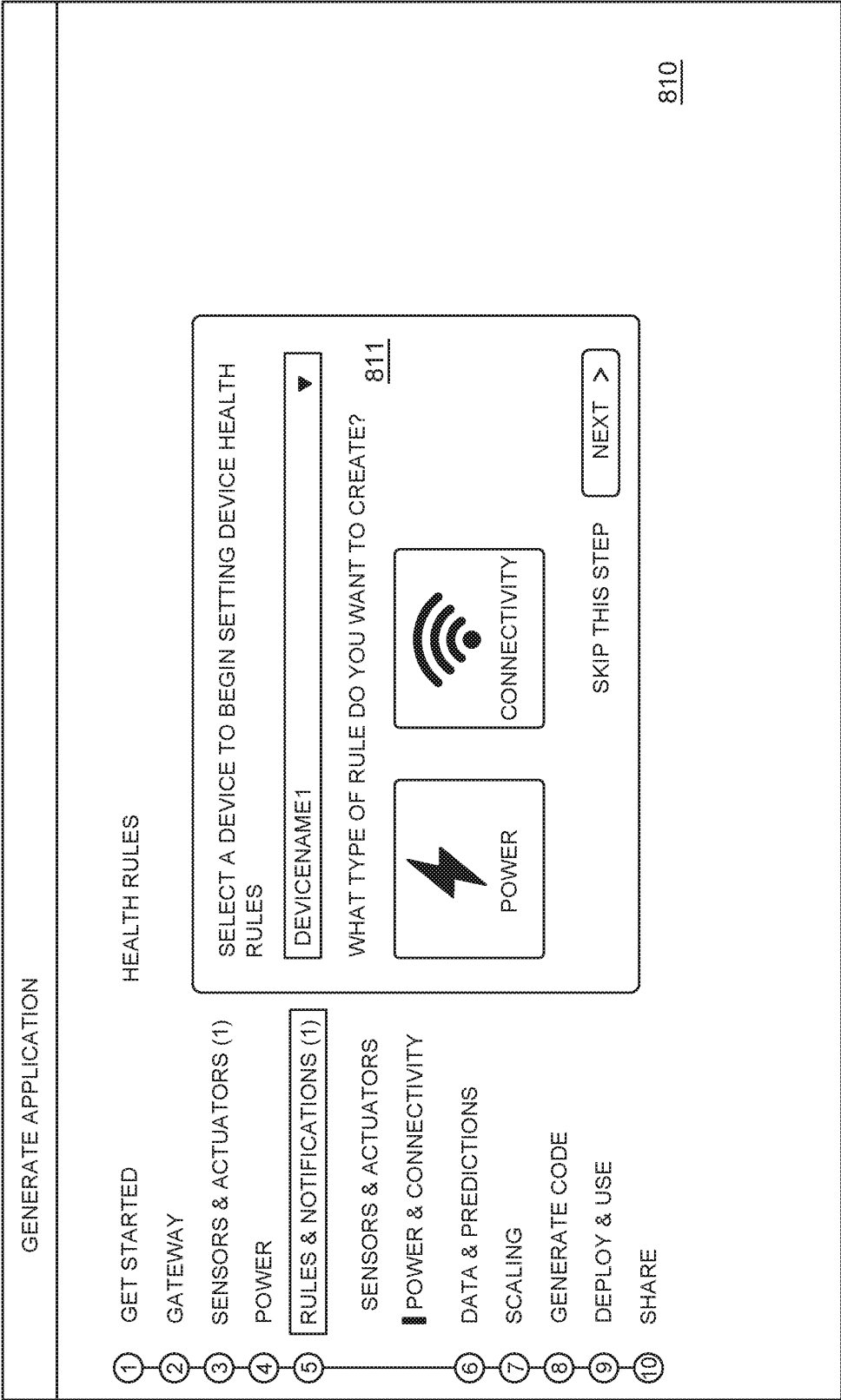


FIG. 8

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GENERATE APPLICATION

- 1 GET STARTED
- 2 GATEWAY (1)
- 3 SENSORS & ACTUATORS (3)
- 4 POWER
- 5 RULES & NOTIFICATIONS (4)
- 6 DATA & PREDICTIONS
- 7 SCALING
- 8 GENERATE CODE
- 9 DEPLOY & USE
- 10 SHARE

6 DATA & PREDICTION PREFERENCES

SENSOR DATA FREQUENCY

HOW OFTEN SHOULD GATEWAYS SEND SENSOR DATA?

EVERY 30 MINUTES CHANGE

HOW OFTEN SHOULD EDGES SEND SENSOR DATA TO GATEWAYS?

EVERY 20 SECONDS CHANGE

SENSOR PREDICTION

MACHINE-LEARNING DRIVEN INSIGHTS INTO BEHAVIOR OF SENSORS & ACTUATORS

ANOMALY DETECTION ☒

GET AUTOMATIC EMAIL OR SMS NOTIFICATIONS WHEN ABNORMAL EVENTS IN DATA

RULE TRIGGER PREDICTION ☒

AUTOMATICALLY NOTIFY WHEN PREDICTS THAT SENSOR HEALTH RULES WILL TRIGGER

DATA INSIGHTS

SYSTEM OPTIMIZATION

WHAT ASPECTS OF SYSTEM ARE TO OPTIMIZE FOR?

☐ MINIMIZE MACHINE DOWNTIME

☐ INCREASE PROCESS OUTPUT

☐ REDUCE RESOURCE CONSUMPTION

EXTERNAL DATA SOURCES

AUGMENT SENSOR DATA WITH ADDITIONAL DATA SETS.

WHICH INFORMATION SOURCES ARE MOST RELEVANT TO APPLICATION.

☐ WEATHER DATA, E.G., THE YAHOO WEATHER API

☐ FINANCIAL DATA E.G., STOCK DATA

☐ CUSTOMER SUPPORT DATA E.G., TICKETS FROM COMPANY'S ACCOUNT

☐ BUSINESS METRICS E.G., CUSTOMER RETENTION FIGURES

☐ INFRASTRUCTURE METRICS E.G., SERVER UPTIME

☐ ANY INTERNAL DATABASE OR API DATA

DATA FOR PUBLIC GOOD

GENERATING DATA ON AIR, WATER, OR SOIL QUALITY?

OPEN TO SHARING THIS DATA TO ADVANCE THE PUBLIC GOOD?

CHECK THE BOX BELOW AND WE'LL BE IN TOUCH.

☐

I'M INTERESTED IN SHARING SENSOR DATA

SENDING DATA TO THIRD-PARTY CLOUDS? NEXT >

FIG. 9

GENERATE APPLICATION

1

GET STARTED

2

GATEWAY (1)

3

SENSORS & ACTUATORS (3)

4

POWER

5

RULES & NOTIFICATIONS (4)

6

DATA & PREDICTIONS

7

KOSMOS DATA SETTINGS

8

THIRD-PARTY CLOUDS

9

SCALING

10

GENERATE CODE

11

DEPLOY & USE

12

SHARE

SEND SENSOR DATA TO THIRD-PARTY CLOUDS

SENDING DATA TO AWS IOT

AWS ACCESS KEY ID

THE ACCESS KEY ID PROVIDED BY AMAZON WEB SERVICES

AWS SECRET KEY ID

THE SECRET KEY ID PROVIDED AMAZON WEB SERVICES

USER REGION

THE AWS REGION THAT YOU WANT TO SEND YOUR DATA TO E.G., "US-EAST-1"

BUCKET NAME

THE NAME OF THE BUCKET THAT WILL BE THE FILE DESTINATION.

FREQUENCY

HOW OFTEN DO YOU WANT TO SEND DATA TO AMAZON? ▼

< BACK

NEXT >

FIG. 10

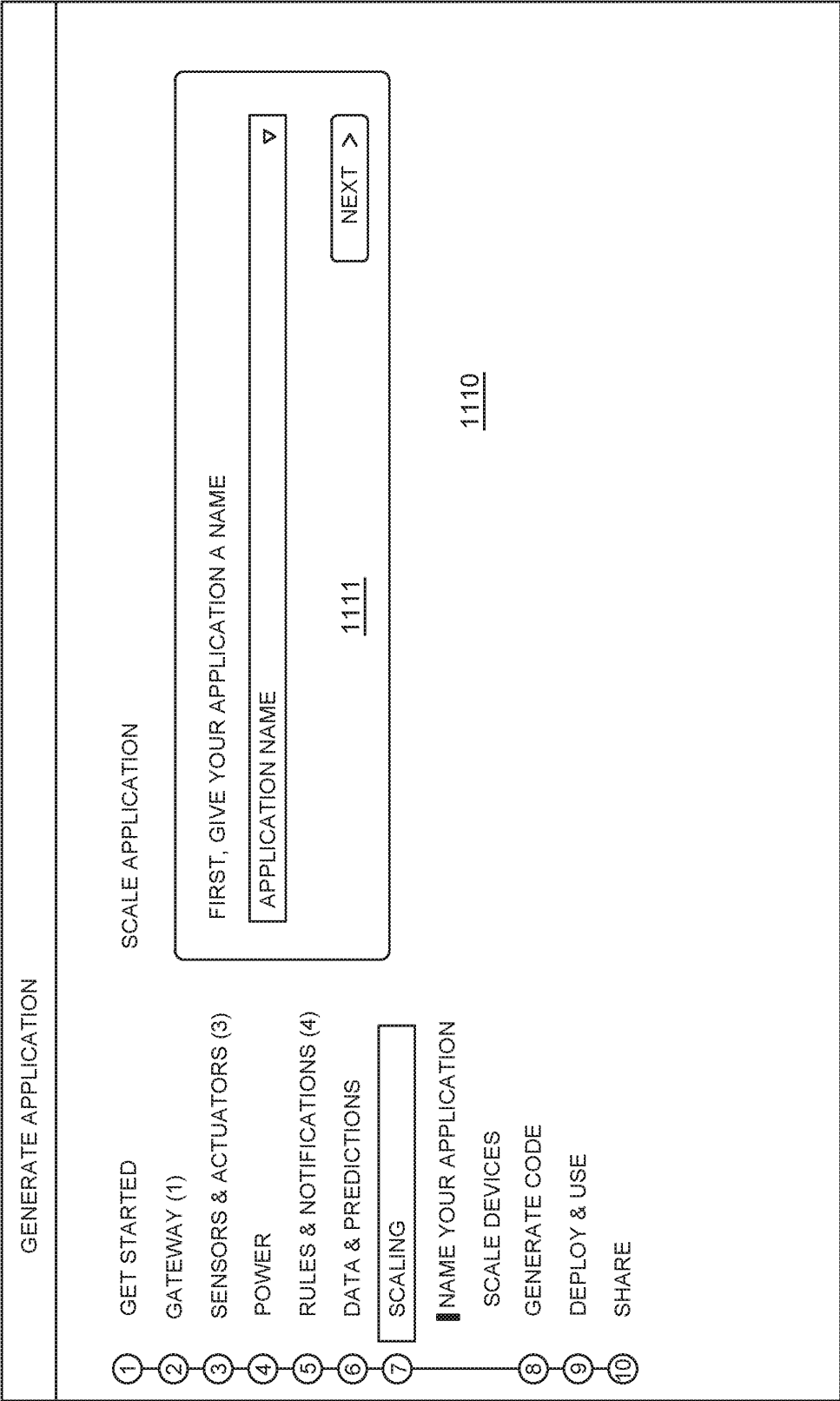


FIG. 11A

GENERATE APPLICATION

1 GET STARTED

2 GATEWAY (1)

3 SENSORS & ACTUATORS (3)

4 POWER

5 RULES & NOTIFICATIONS (4)

6 DATA & PREDICTIONS

7 SCALING

8 NAME YOUR APPLICATION

9 SCALE DEVICES

10 GENERATE CODE

DEPLOY & USE

SHARE

SCALE APPLICATION

HOW MANY OF EACH TYPE OF EDGE SHOULD CONNECT TO GATEWAY?

FIRSTDEVICENAME

▼

X

17 ▼

SECONDDDEVICENAME

▼

X

12 ▼

APPLICATION HAS 29 EDGES CONNECTED TO GATEWAY.

HOW MANY INSTANCES OF APPLICATION TO GENERATE?

3 ▼

UPDATE GATEWAY LOCATIONS

GATEWAY 1

104 FRANKLIN STREET, NEW YORK, NY 10013, USA

USE LAT/LONG

GATEWAY 2

104 FRANKLIN STREET, NEW YORK, NY 10013, USA

USE LAT/LONG

GATEWAY 3

104 FRANKLIN STREET, NEW YORK, NY 10013, USA

USE LAT/LONG

SKIP THIS STEP

NEXT >

FIG. 11B

GENERATE APPLICATION

1

GET STARTED

2

GATEWAY (1)

3

SENSORS & ACTUATORS (3)

4

POWER

5

RULES & NOTIFICATIONS (4)

6

DATA & PREDICTIONS

7

SCALING

NAME YOUR APPLICATION

SCALE DEVICES

DEVICE IDs

GENERATE CODE

DEPLOY & USE

SHARE

SCALE YOUR APPLICATION

HOW DO YOU WANT YOUR EDGE DEVICES TO BE IDENTIFIED?

☒ DEFAULT IDs

☐ UPLOAD YOUR OWN IDs

☐ SPECIFY A CUSTOM ID FORMAT

NEXT >

FIG. 11C

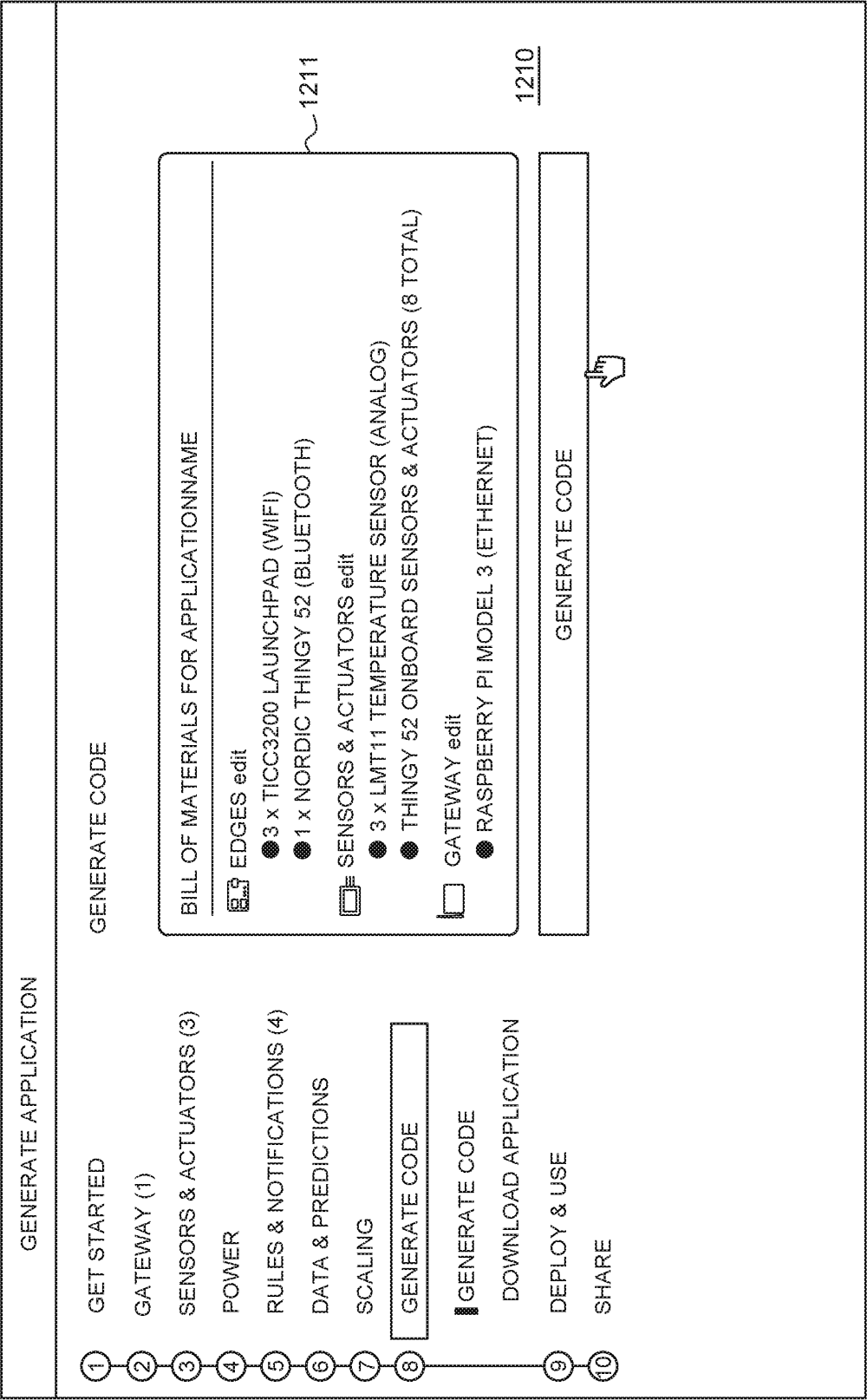


FIG. 12A

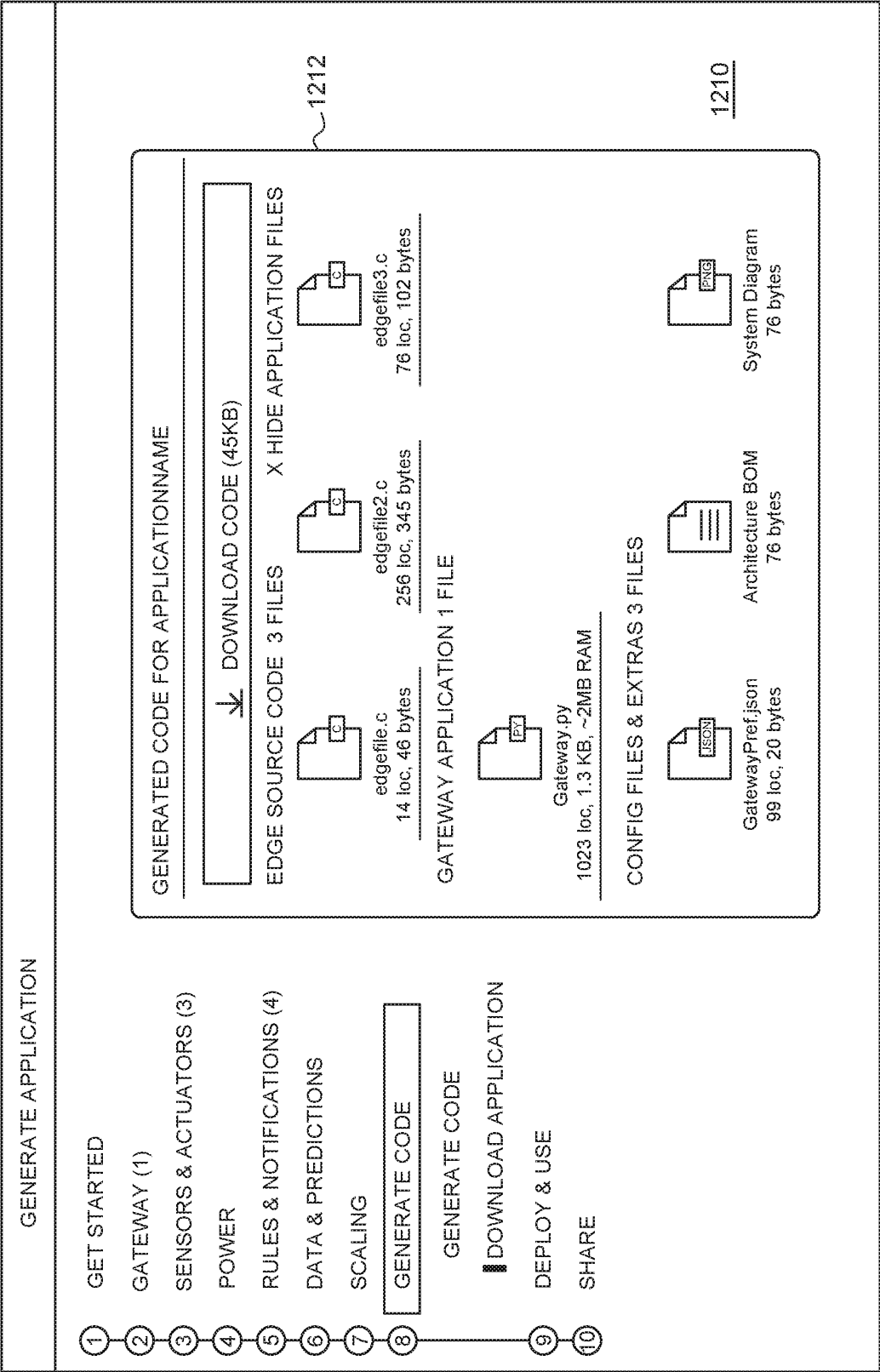


FIG. 12B

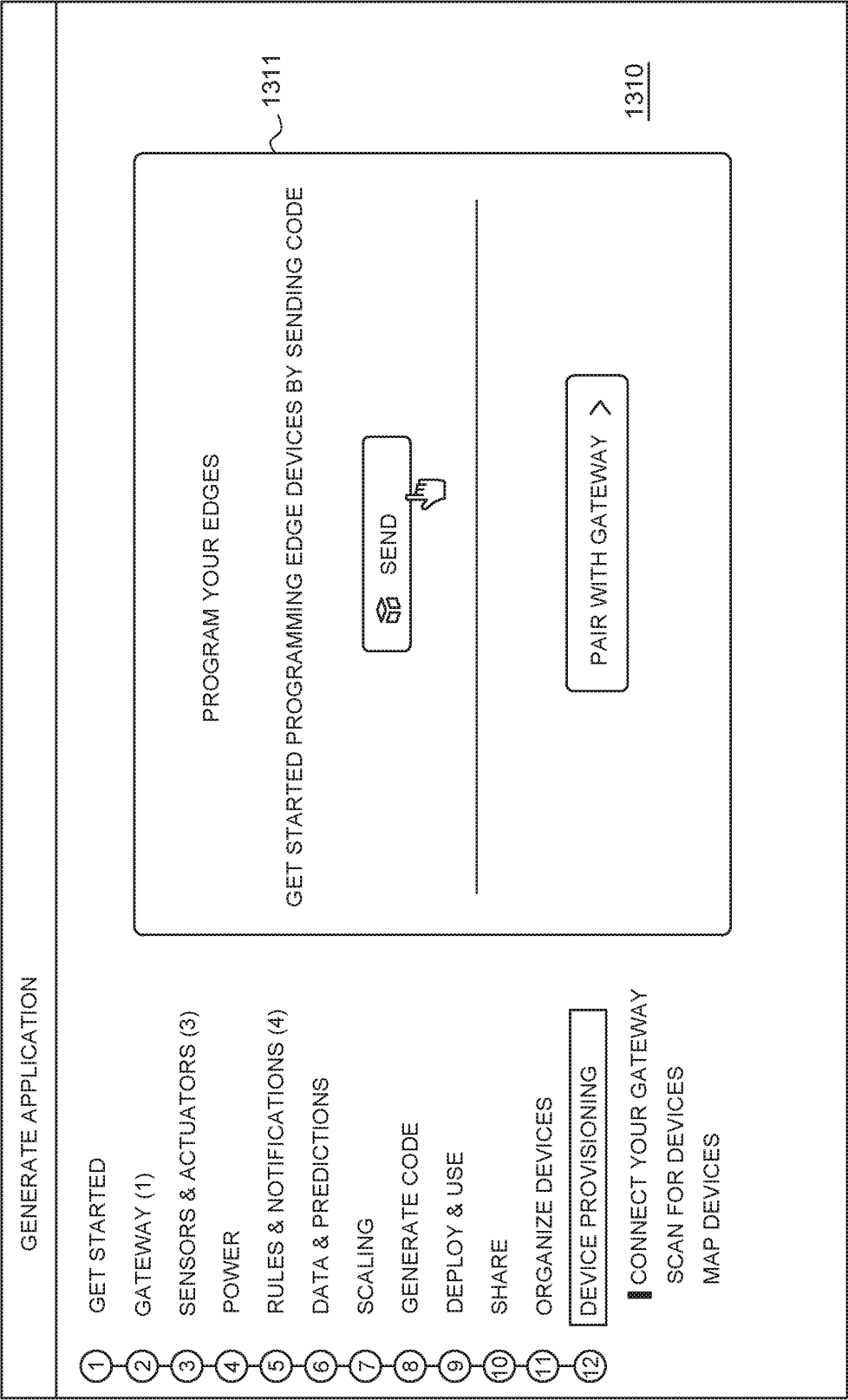


FIG. 13A

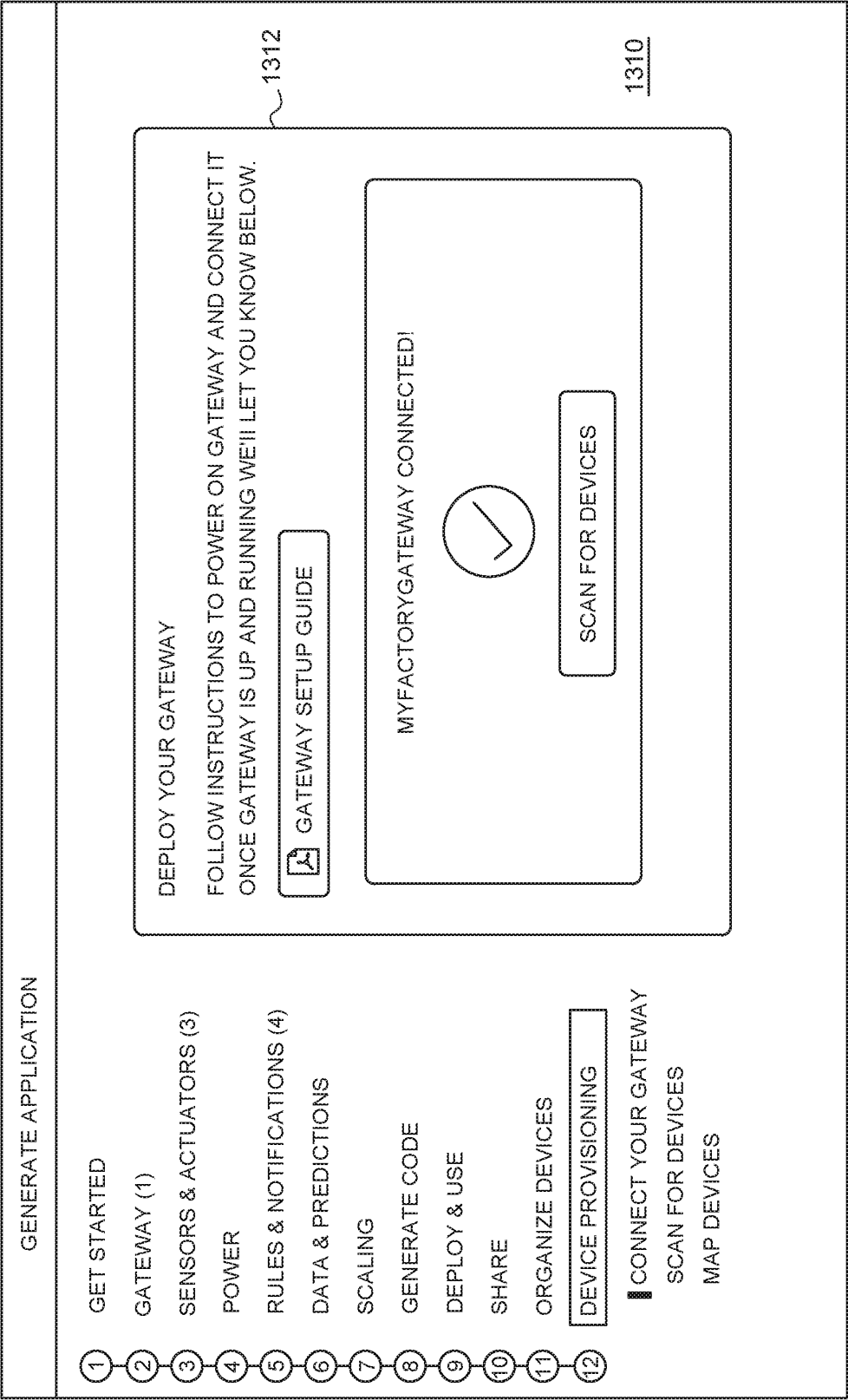


FIG. 13B

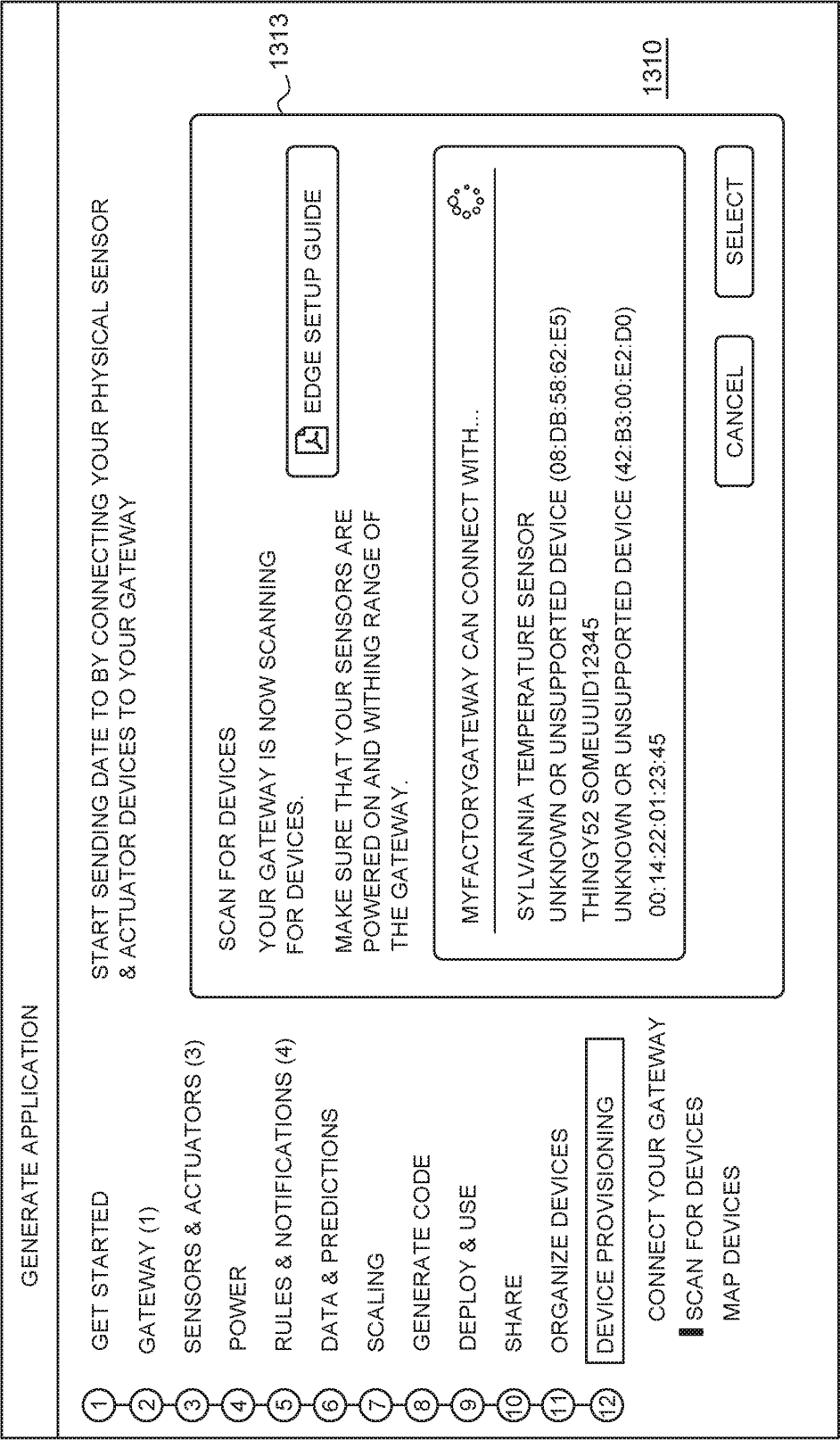


FIG. 13C

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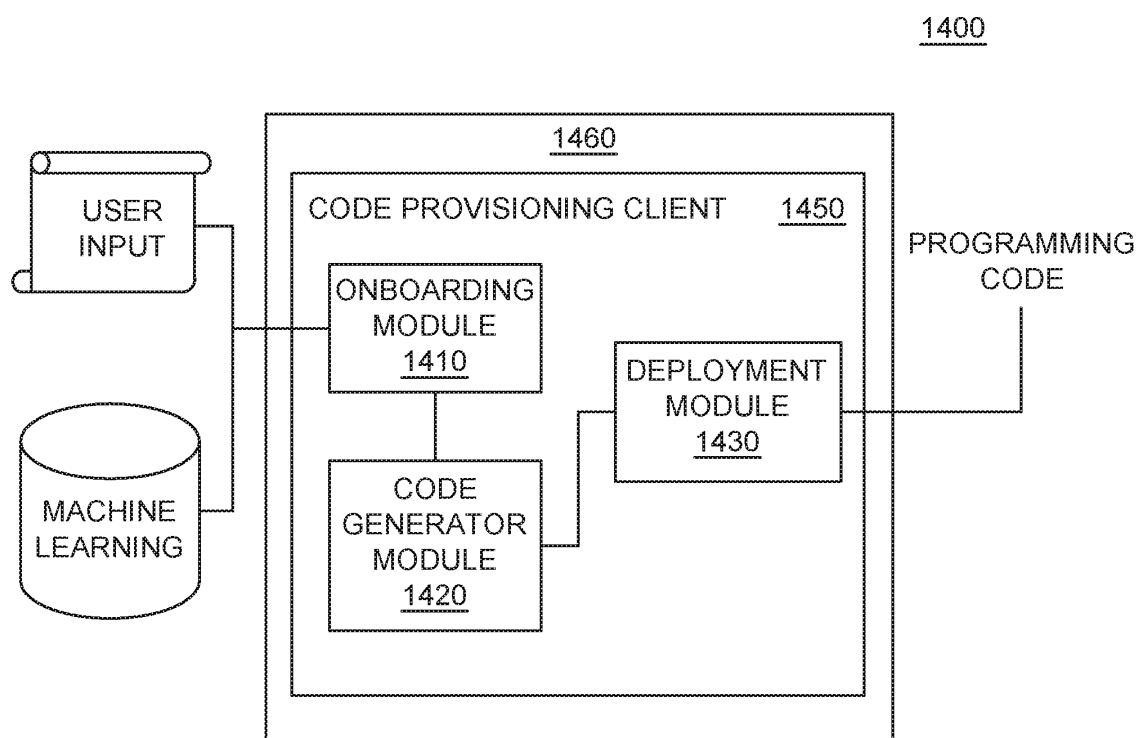


FIG. 14

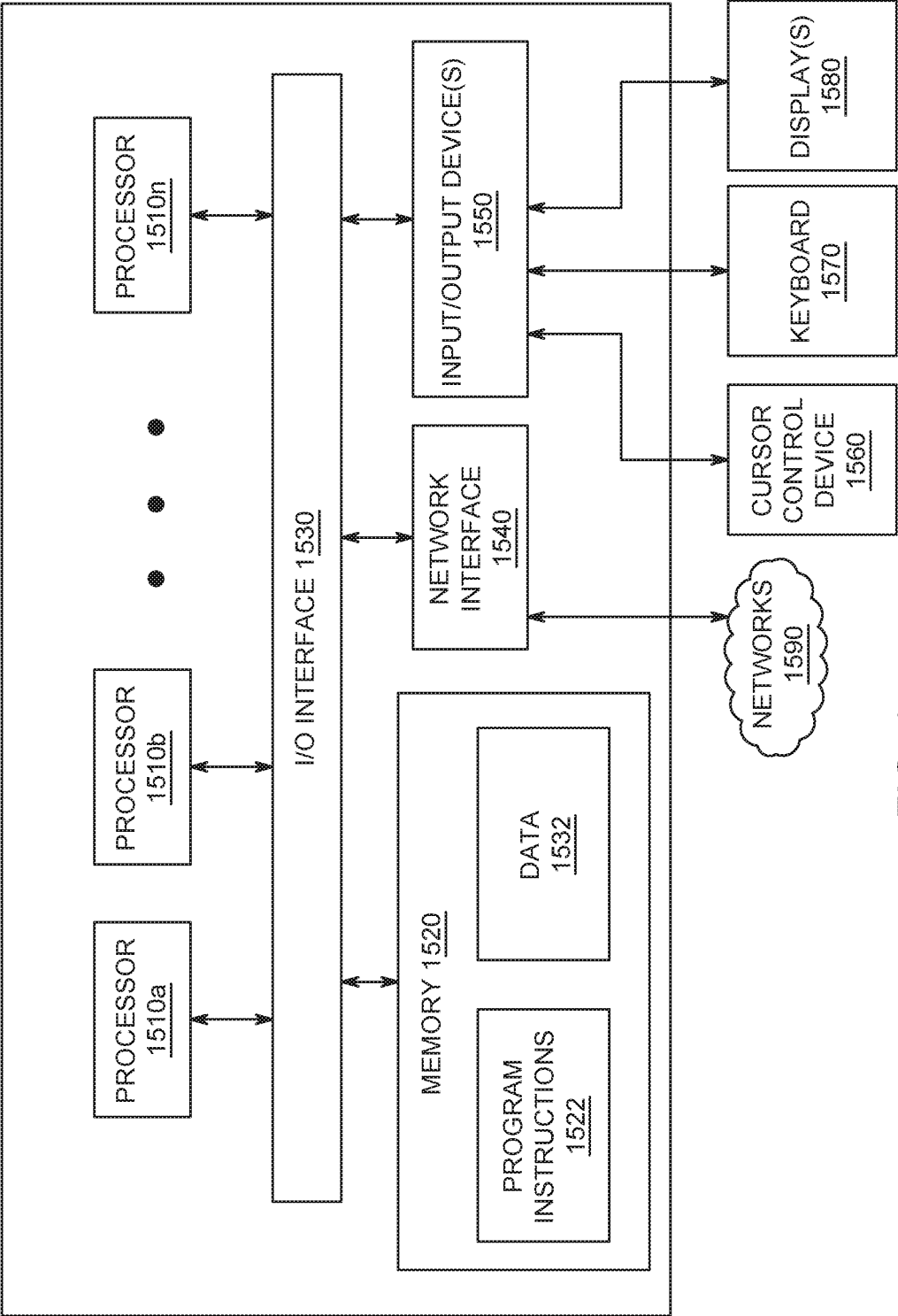


FIG. 15

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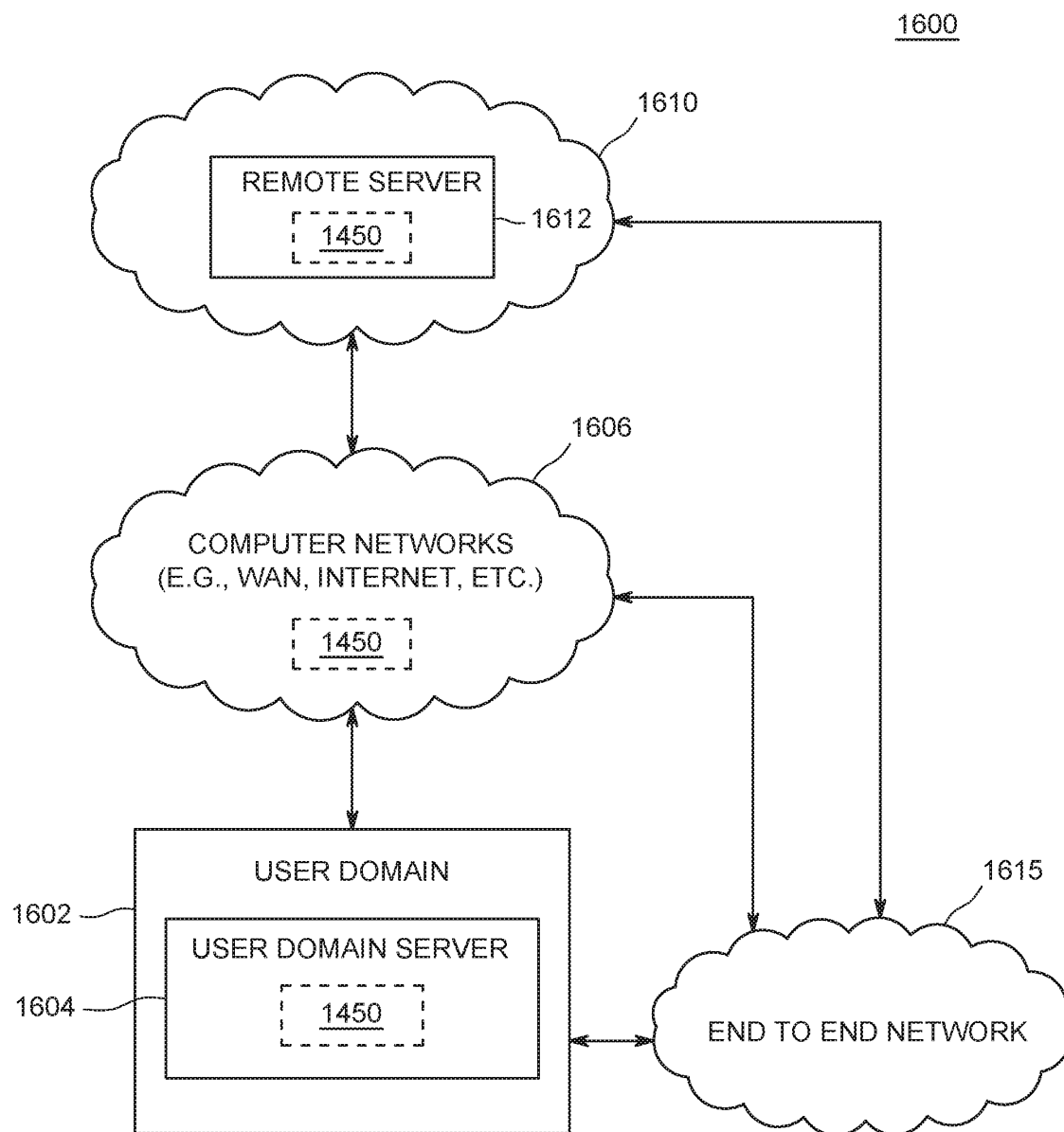


FIG. 16

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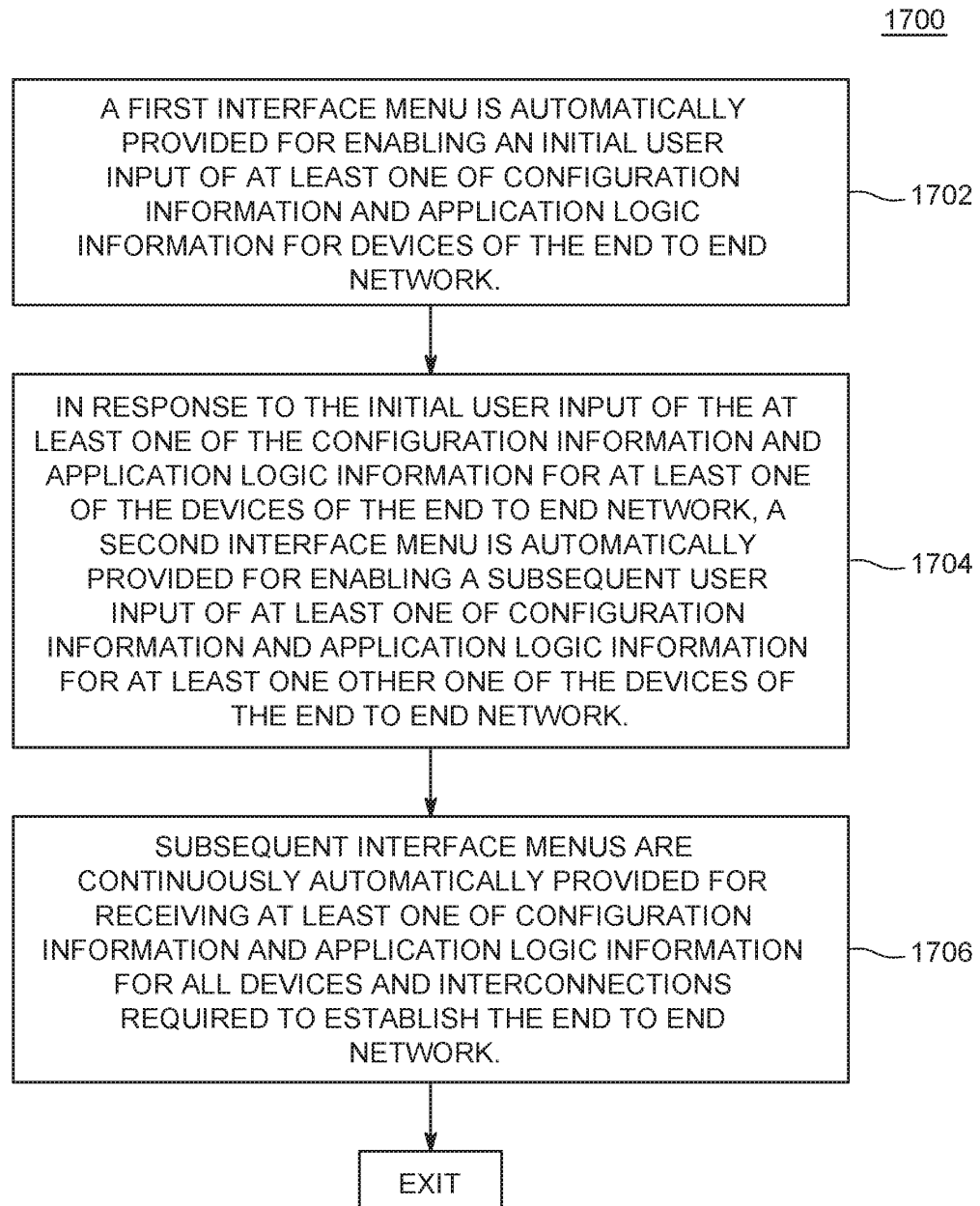


FIG. 17A

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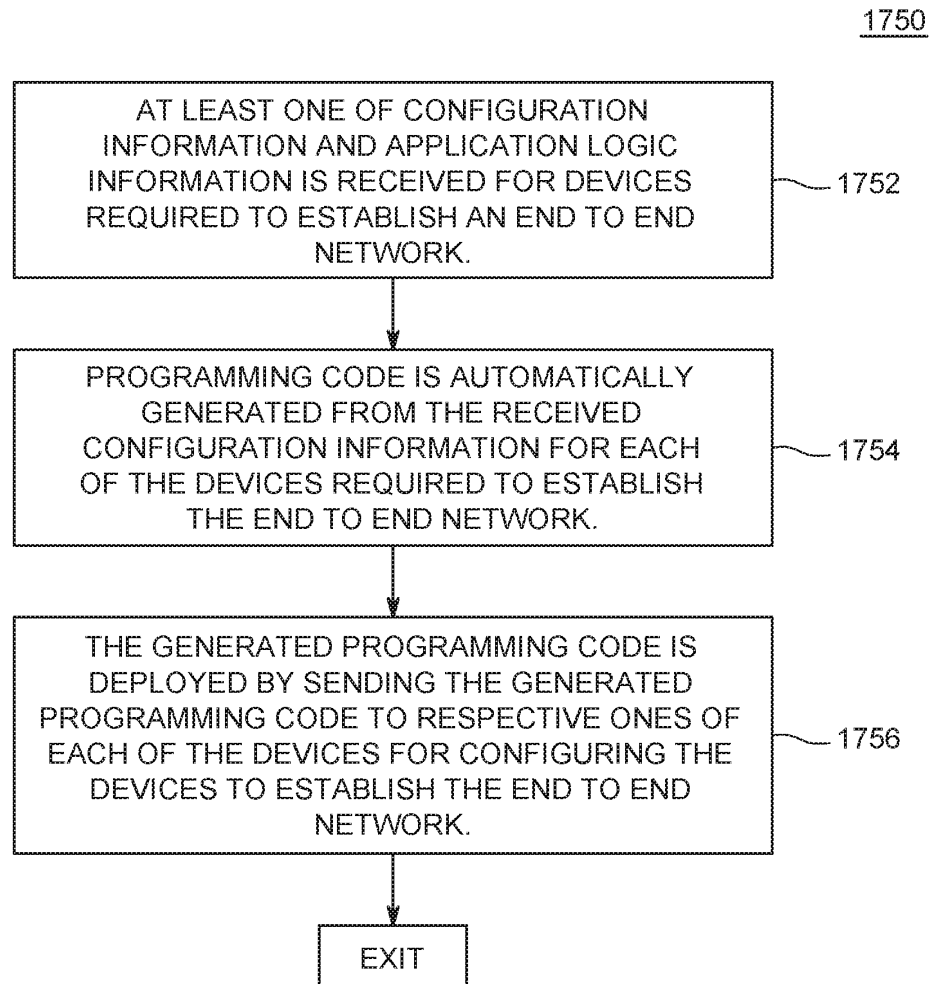


FIG. 17B

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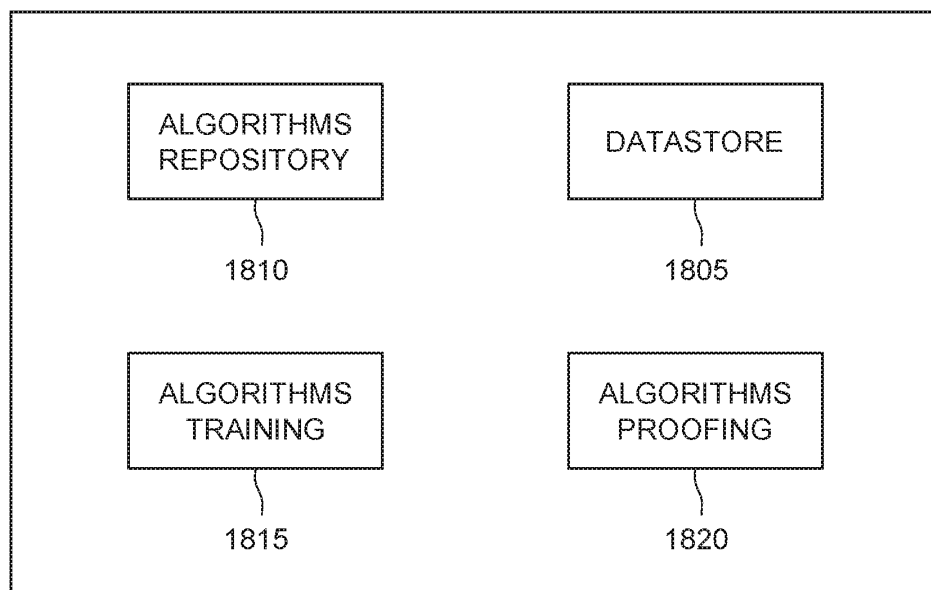


FIG. 18

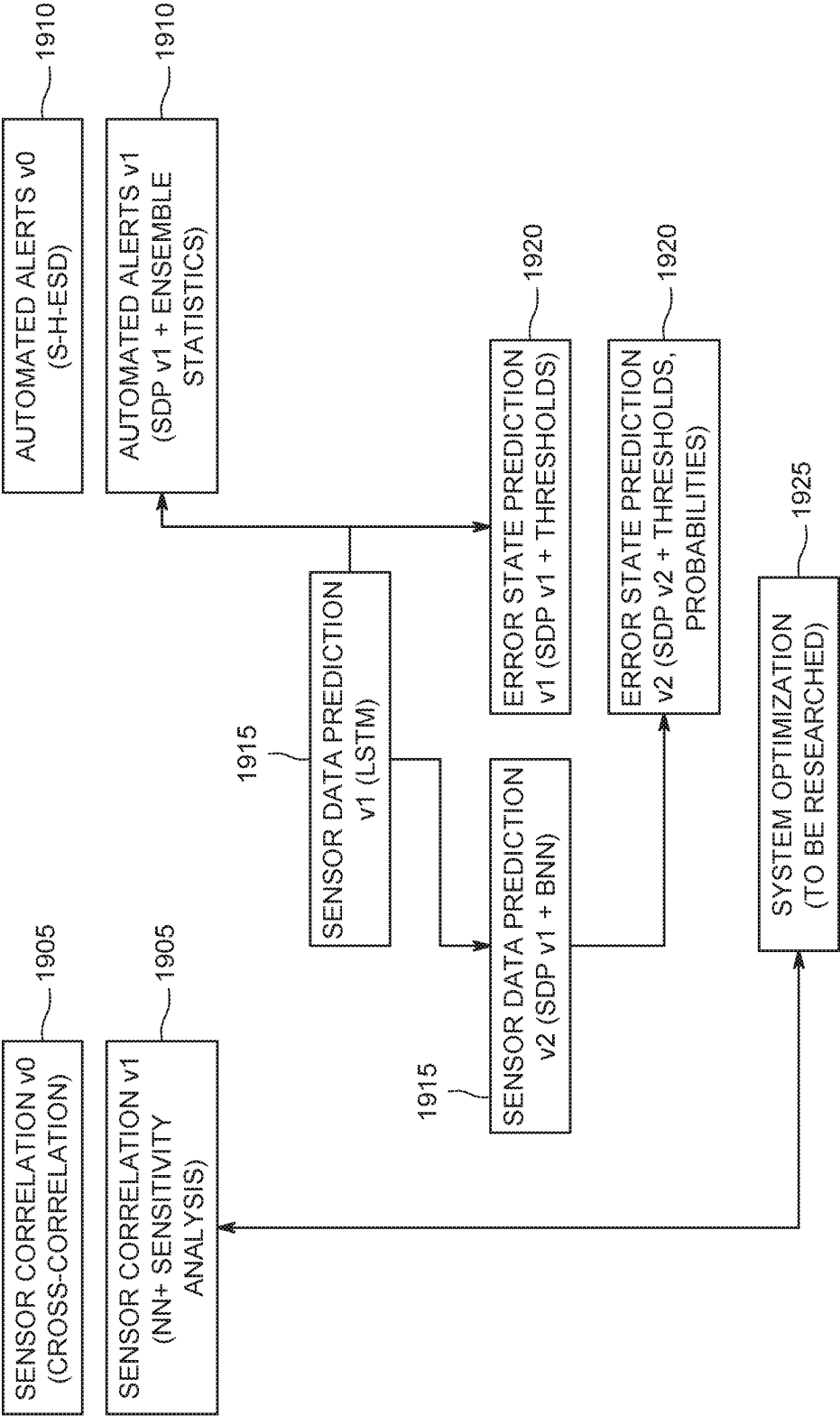


FIG. 19

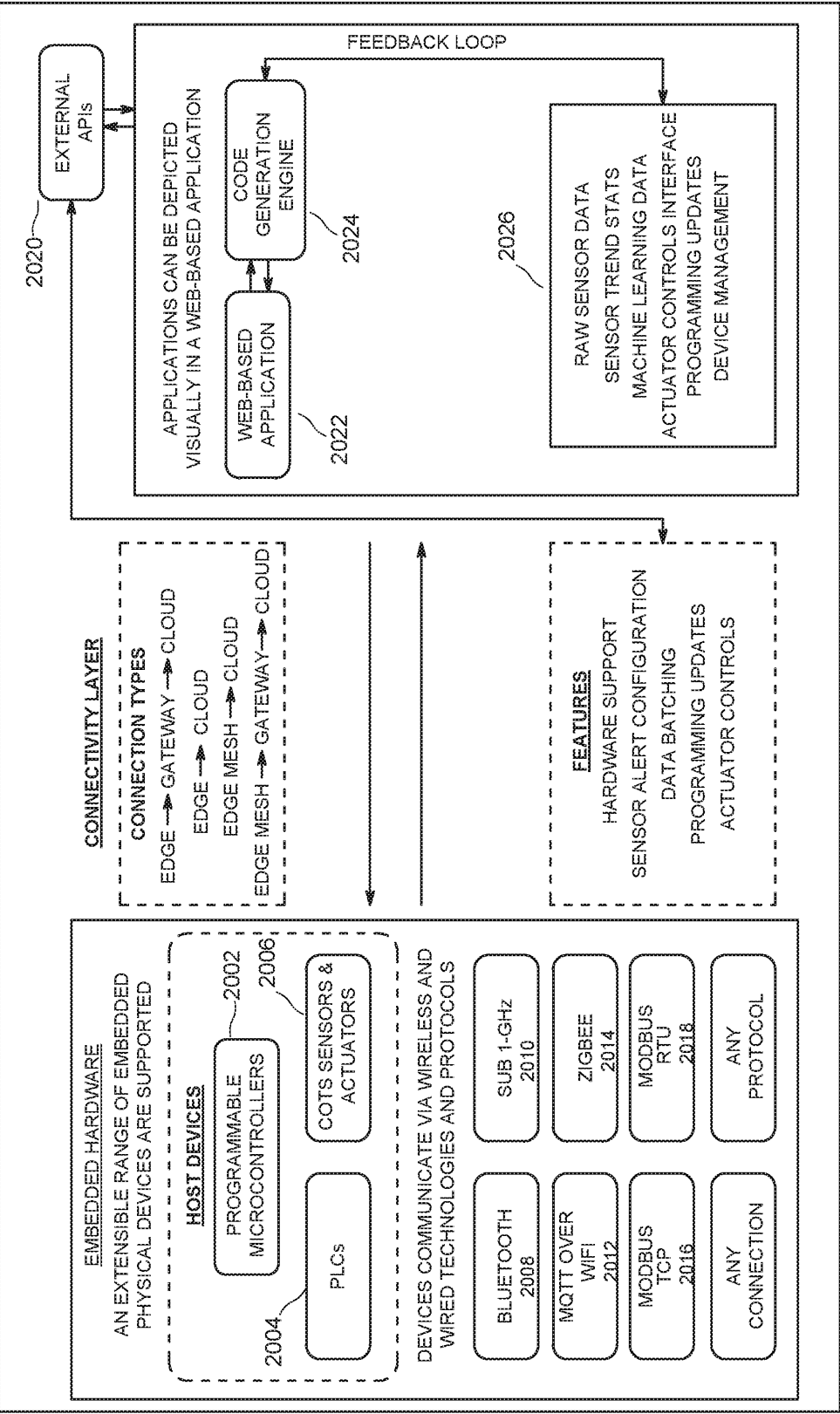


FIG. 20