

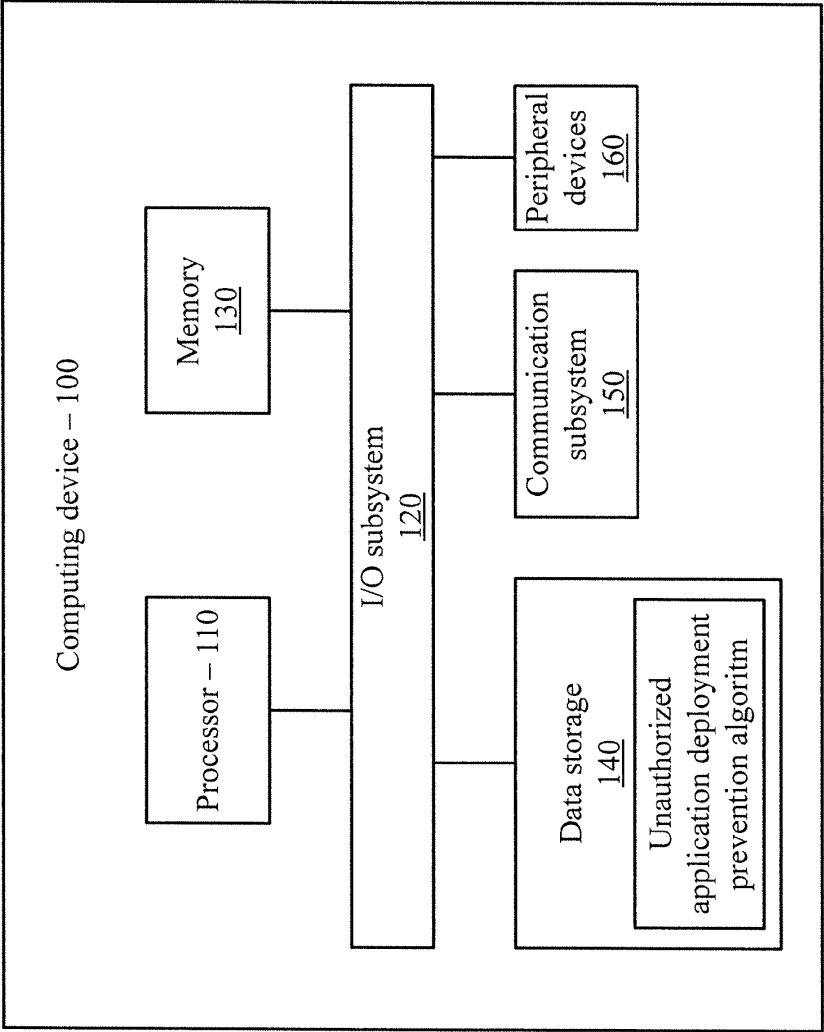


FIG. 1

200 →

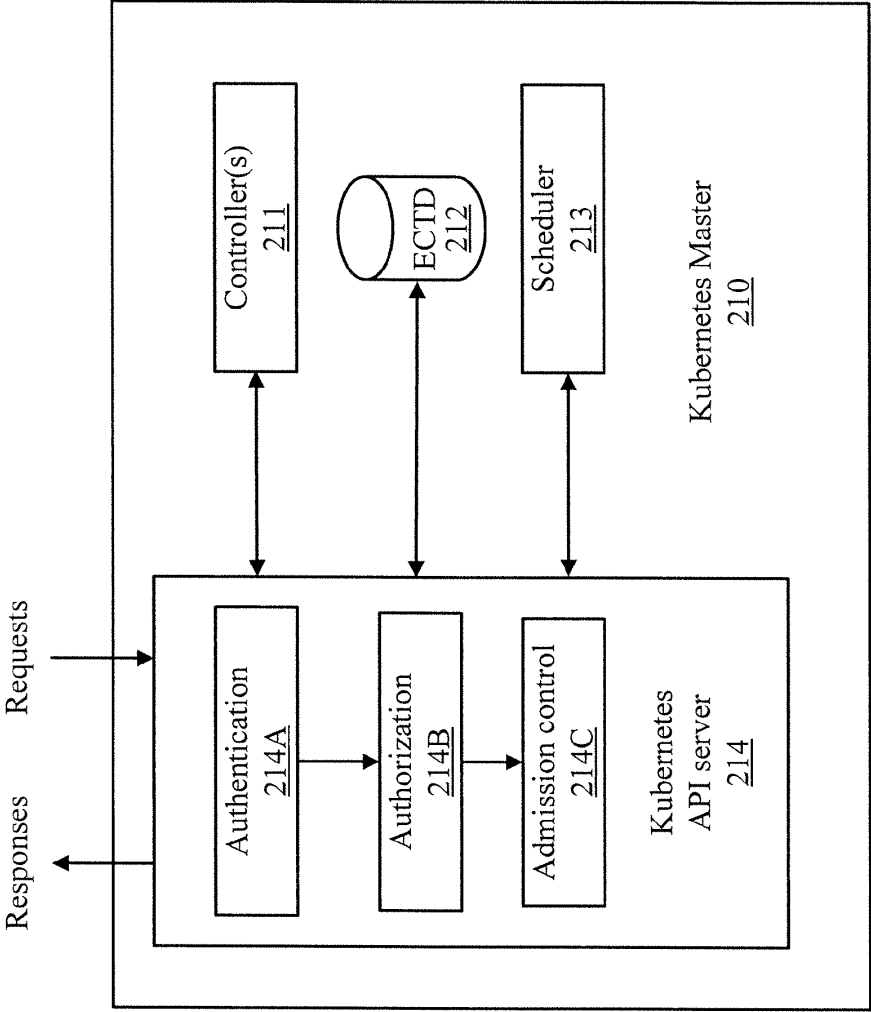


FIG. 2

300 →

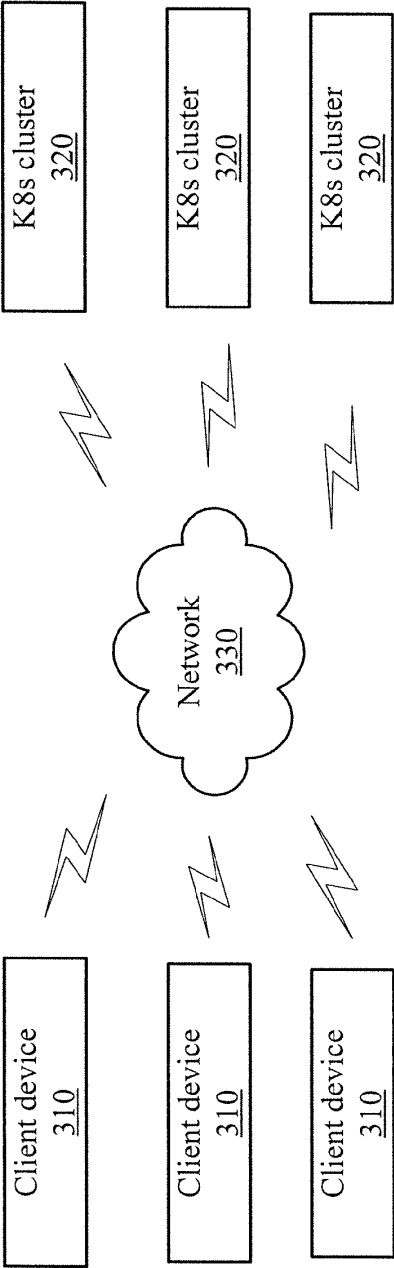


FIG. 3

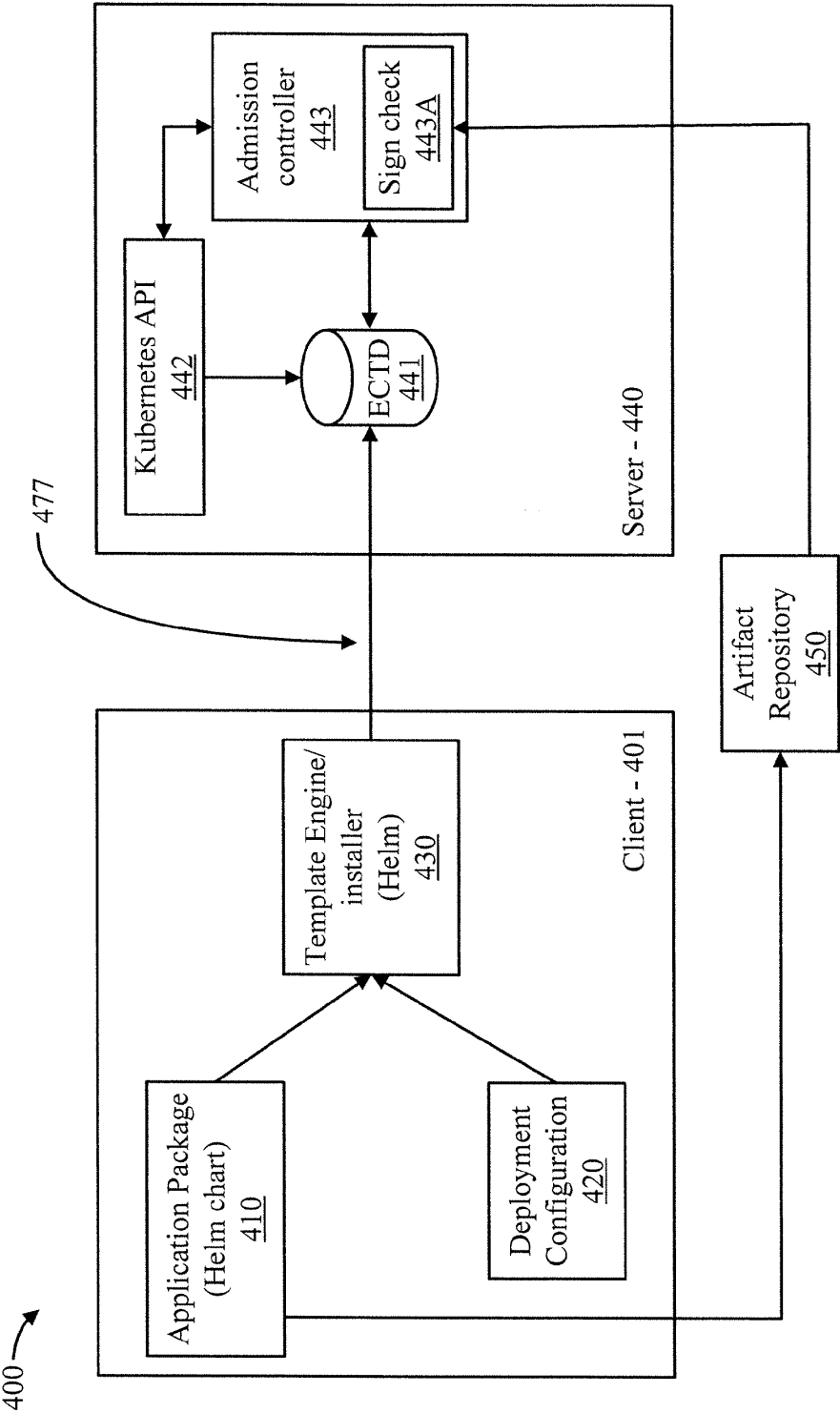


FIG. 4

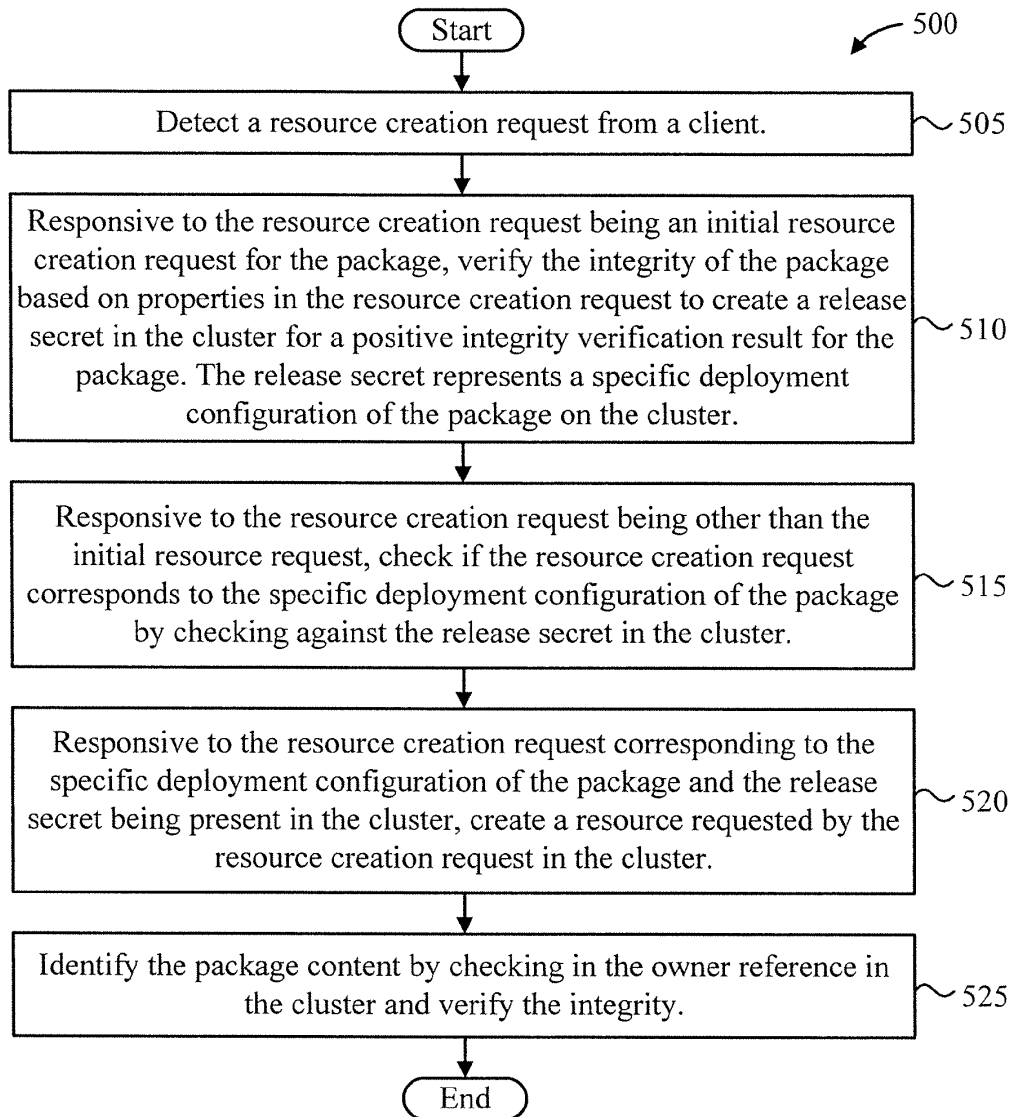
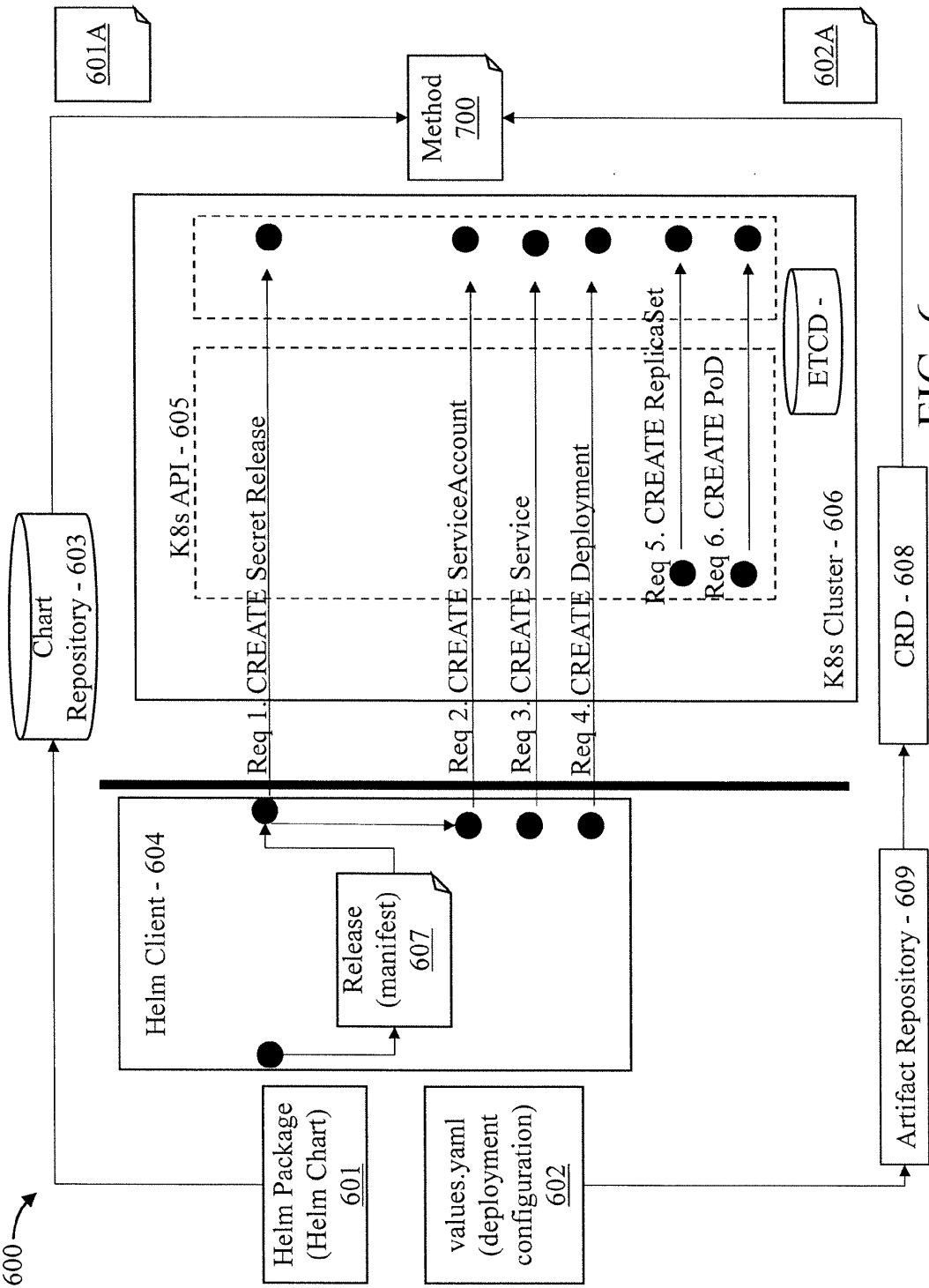
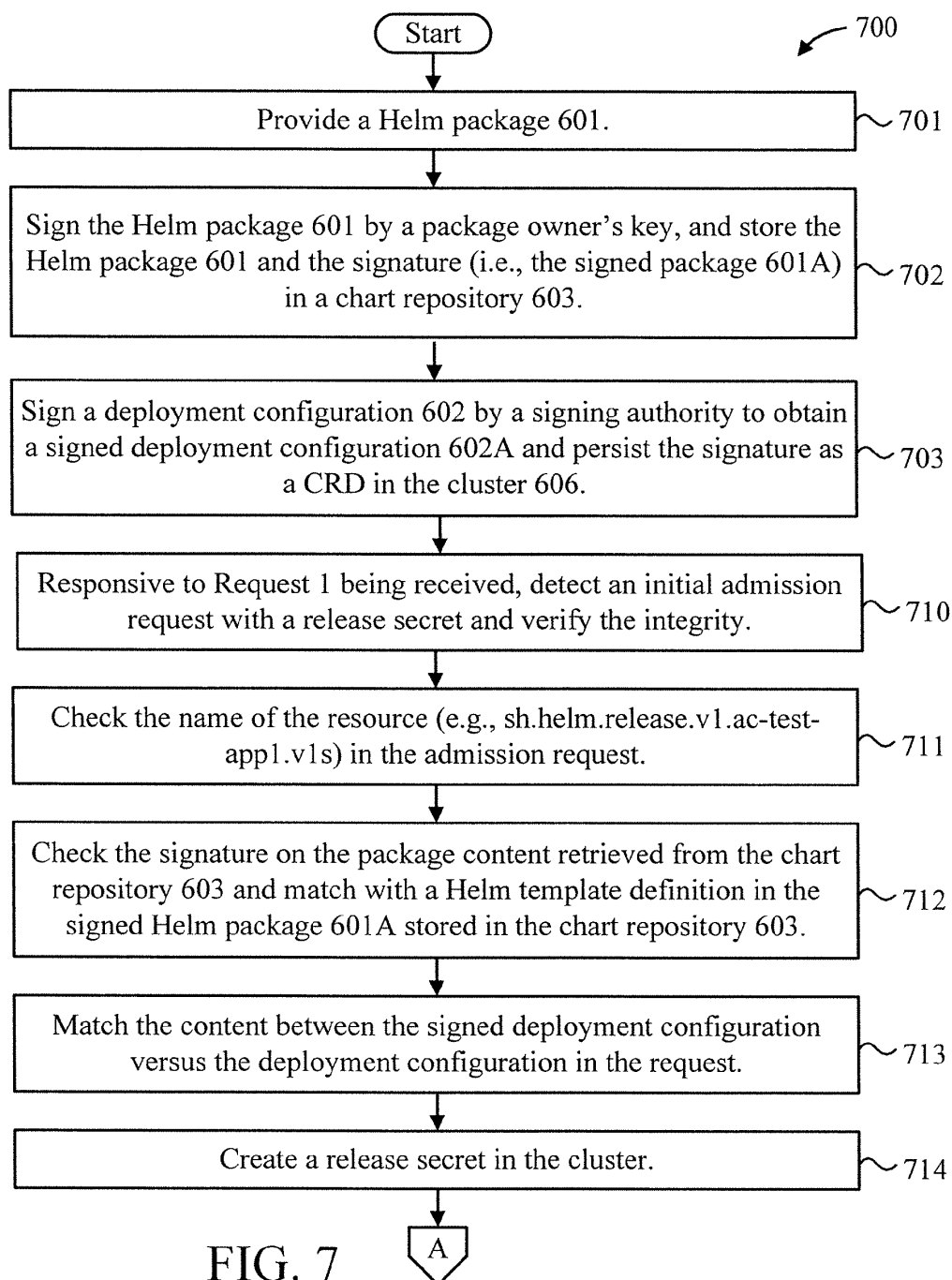
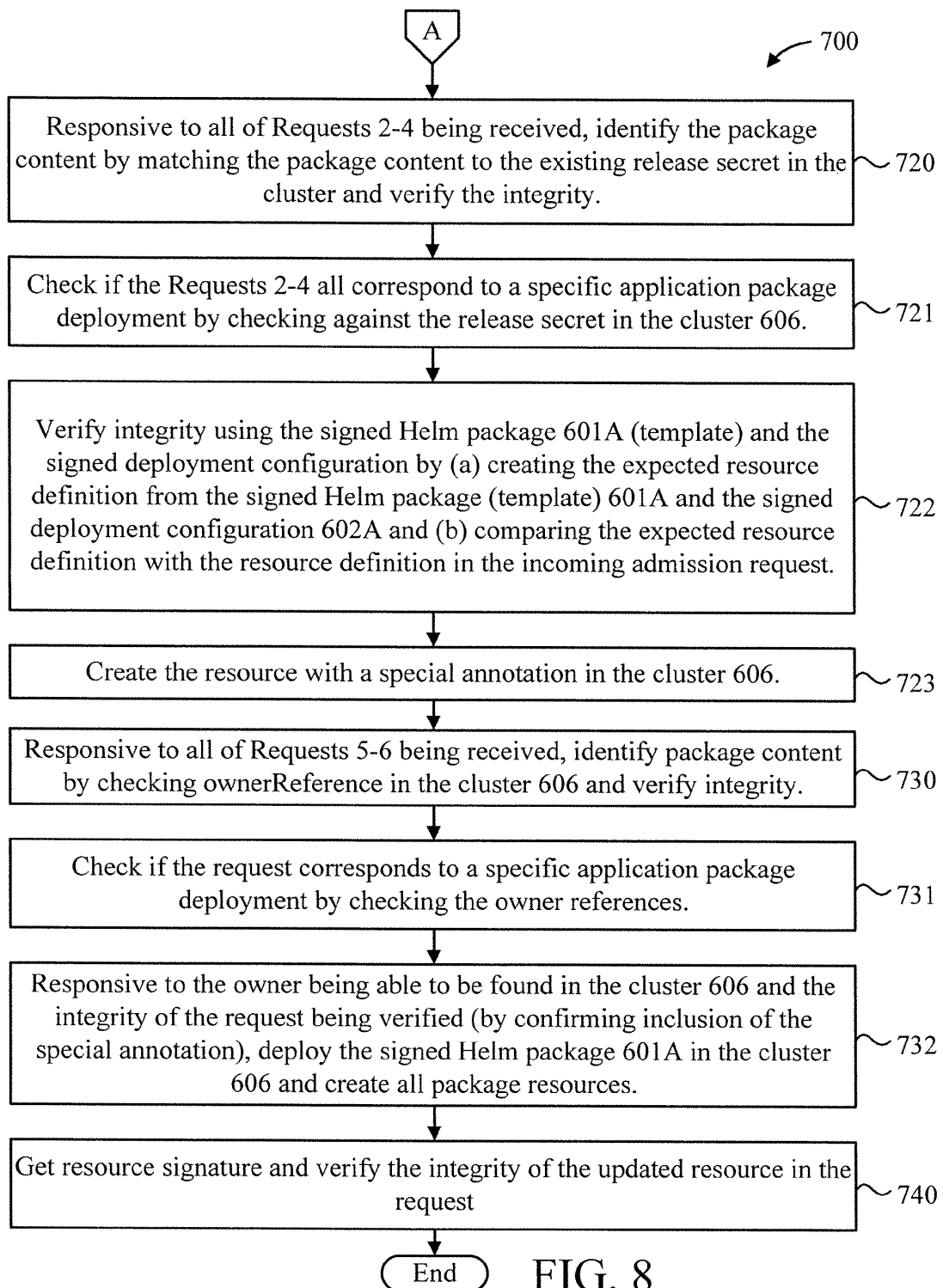


FIG. 5







900 →

```
{
  "apiVersion": "v1",
  "kind": "Secret",
  "data": {
    "release": "SDRzSUFBU..." } 910
  }
  "metadata": {
    name: "sh.helm.release.v1.ac-test-
    appl.v1"
  }
  ...
}
```

FIG. 9

1000 →

```
{
  "name": "ac-test-appl",
  ...
  "chart": {
    "metadata": {
      "name": "ac-test-chart",
      "version": "0.1.0",
      "description": "A Helm chart for Kubernetes",
      "apiVersion": "v2",
      "appVersion": "3.7",
      "type": "application"
    },
    "templates": [
      ...
      {
        "name": "templates/deployment.yaml",
        "data": ...
      }
    ]
  }
}
```

FIG. 10

1100 →

Input:

Incoming k8s API request
Resource (name, kind, namespace)
Operation: CREATE, UPDATE, DELETE

Output:

verdict: ALLOW or REJECT
annotations: add “integrityVerified=true” to resource.
reasonFail: Error message

Steps:

```
if (Is Internal k8s System Request == Yes):  
    Return verdict “ALLOW”  
else:  
    if ( Operation is “CREATE ”):  
        HandleCreationRequest ()  
    else if ( Operation is “UPDATE” ):  
        HandleUpdateRequest ()  
    else  
        return verdict ALLOW
```

FIG. 11

1200 →

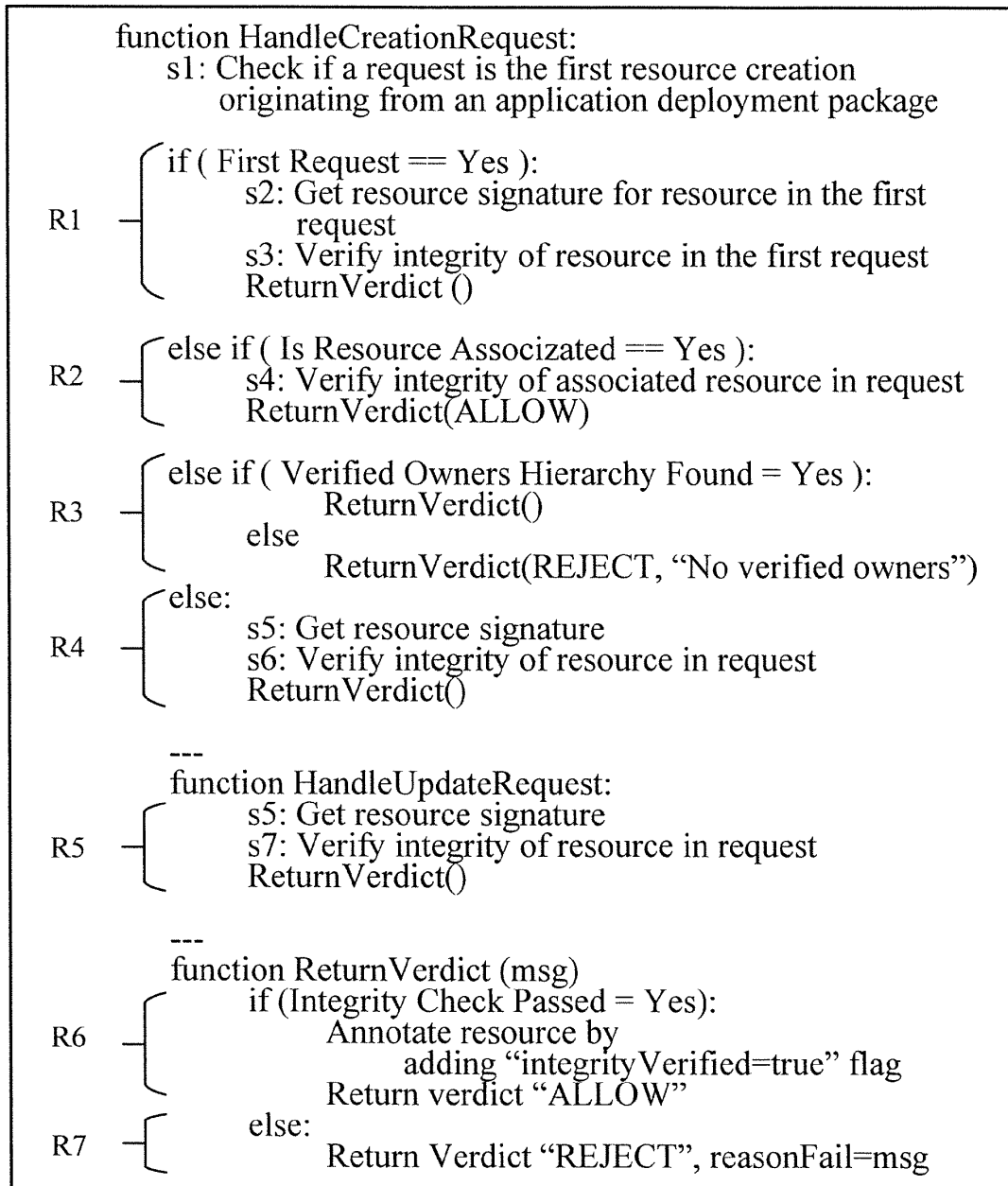
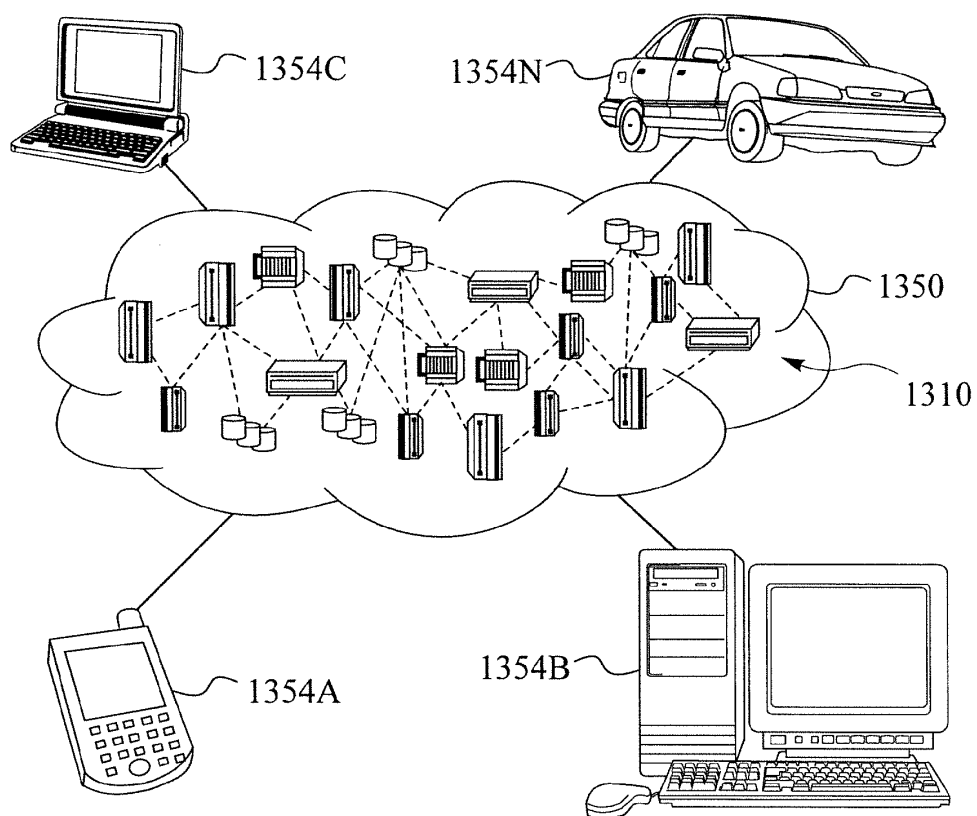


FIG. 12

**FIG. 13**

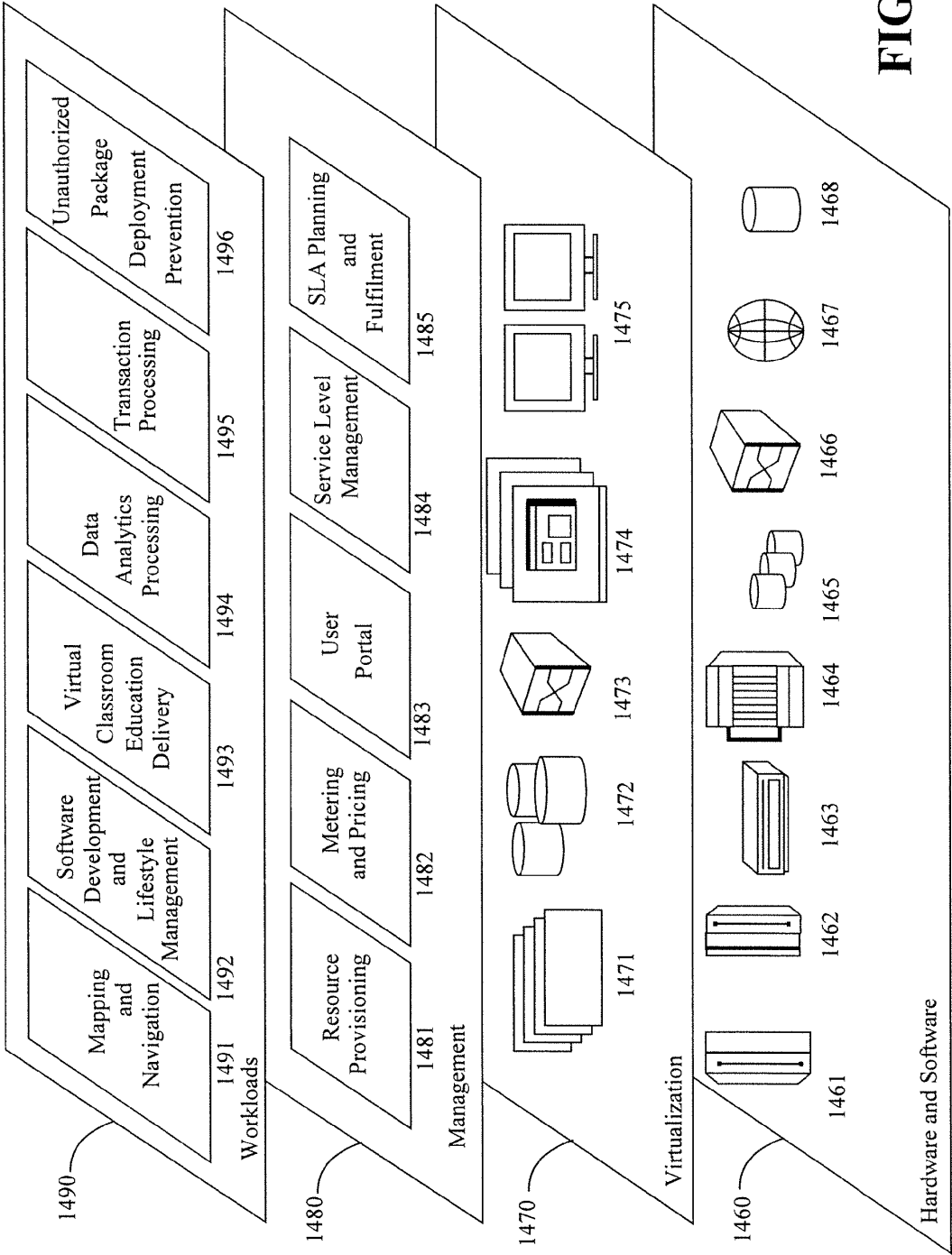


FIG. 14