

# KBI-클라우드 데이터 인프라 구축 과정

2일차: VPC Wizard

2022.09.26

# VPC

# AWS Console

S | Services  [Option+S] Reset to default layout + Add widgets i

Console Home Info

Recently visited Info

-  VPC
-  EC2
-  Lambda
-  IAM
-  S3
-  CloudShell

[View all services](#)

Welcome to AWS

Getting started with AWS  Learn the fundamentals and find valuable information to get the most out of AWS.

Training and certification  Learn from AWS experts and advance your skills and knowledge.

What's new with AWS?  Discover new AWS services, features, and Regions.

AWS Health Info

No health data 

This could be because you don't have permissions to access AWS Health. Please contact your account administrator.

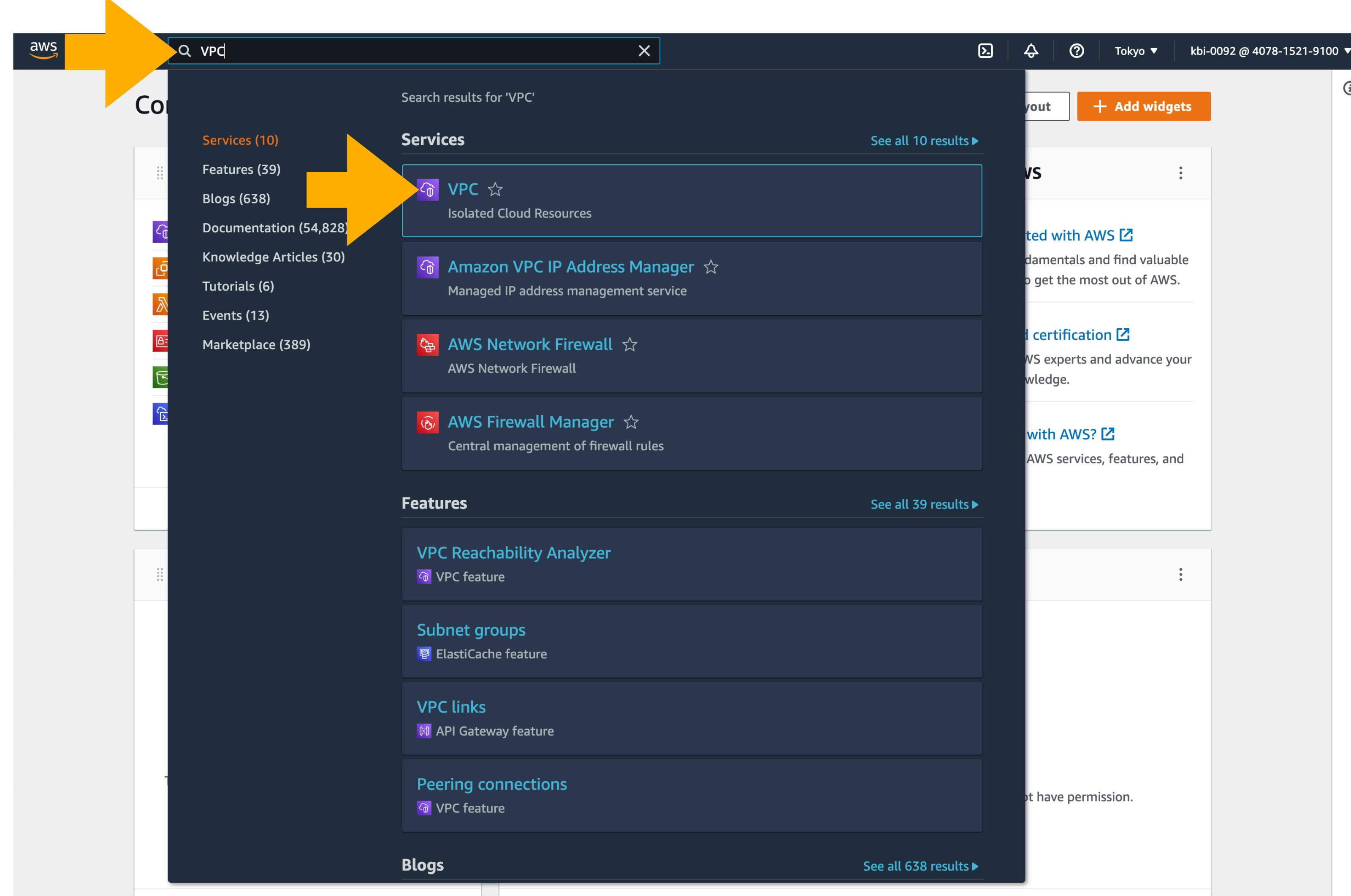
Cost and usage Info

No cost and usage 

This could be because you haven't configured AWS Cost Manager or you do not have permission.

# VPC

## AWS Console



# VPC

# VPC Console

The screenshot shows the AWS VPC Console dashboard. On the left, there's a navigation sidebar with sections like 'Virtual private cloud', 'Security', 'Network Analysis', and 'DNS firewall'. A prominent orange arrow points from the top-left towards the 'Create VPC' button. The main area displays 'Resources by Region' with various Amazon VPC resources listed, such as VPCs, Subnets, Route Tables, Internet Gateways, and Security Groups. To the right, there are sections for 'Service Health' (showing 'Amazon EC2 - Asia Pacific' is operating normally), 'Settings' (with links to 'Zones' and 'Console Experiments'), 'Additional Information' (links to 'VPC Documentation', 'All VPC Resources', 'Forums', and 'Report an Issue'), 'AWS Network Manager' (described as centrally managing Cloud WAN core network and Transit Gateway network), and 'Site-to-Site VPN Connections' (described as enabling connections to own isolated resources within the AWS Cloud). A 'Create VPN Connection' button is located at the bottom right of this section.

New VPC Experience  
Tell us what you think

Services  [Option+S]

Create VPC Launch EC2 Instances

Note: Your Instances will launch in the Asia Pacific region.

VPC dashboard EC2 Global View New Filter by VPC: Select a VPC

Virtual private cloud Your VPCs Subnets Route tables Internet gateways Egress-only internet gateways Carrier gateways DHCP Option Sets Elastic IPs Managed prefix lists Endpoints Endpoint services NAT gateways Peering connections

Security Network ACLs Security groups

Network Analysis Reachability Analyzer Network Access Analyzer

DNS firewall

Service Health

Current Status	Details
<span>✓</span> Amazon EC2 - Asia Pacific	Service is operating normally

[View complete service health details](#)

Settings

Zones [Console Experiments](#)

Additional Information

[VPC Documentation](#) [All VPC Resources](#) [Forums](#) [Report an Issue](#)

AWS Network Manager

AWS Network Manager centrally manages your Cloud WAN core network and your Transit Gateway network across AWS and on-premises locations. [Learn more](#)

[Get started with Network Manager](#)

Site-to-Site VPN Connections

Amazon VPC enables you to use your own isolated resources within the AWS Cloud, and then connect those resources directly to your own datacenter using industry-standard encrypted IPsec VPN connections.

[Create VPN Connection](#)

Resources by Region [Refresh Resources](#)

You are using the following Amazon VPC resources

VPCs <small>See all regions</small>	Asia Pacific 2
NAT Gateways <small>See all regions</small>	Asia Pacific 0
Subnets <small>See all regions</small>	Asia Pacific 5
VPC Peering Connections <small>See all regions</small>	Asia Pacific 0
Route Tables <small>See all regions</small>	Asia Pacific 4
Network ACLs <small>See all regions</small>	Asia Pacific 3
Internet Gateways <small>See all regions</small>	Asia Pacific 2
Security Groups <small>See all regions</small>	Asia Pacific 7
Egress-only Internet Gateways <small>See all regions</small>	Asia Pacific 0
Customer Gateways <small>See all regions</small>	Asia Pacific 0
DHCP option sets <small>See all regions</small>	Asia Pacific 1
Virtual Private Gateways <small>See all regions</small>	Asia Pacific 0
Site-to-Site VPN Connections <small>See all regions</small>	Asia Pacific 0
Running Instances <small>See all regions</small>	Asia Pacific 4
Endpoint Services <small>See all regions</small>	Asia Pacific 0

# VPC Wizard

Screenshot of the AWS VPC Wizard interface showing the "Create VPC" step.

The interface includes the following components:

- Header:** AWS logo, Services menu, Search bar, Option+S keybinding, Help icon, Tokyo region, and User info (kbi-0092 @ 4078-1521-9100).
- Breadcrumbs:** VPC > Your VPCs > Create VPC.
- Section Header:** Create VPC Info.
- Information Box:** Introducing the new create VPC experience. We've designed the new create VPC to make it easier to use. The changes include a new visualization of the resources that will be created. [Let us know what you think.](#)
- VPC settings:** Resources to create (VPC only or VPC and more, selected), Name tag auto-generation (Auto-generate checked, project), IPv4 CIDR block (10.0.0.0/16, 65,536 IPs), IPv6 CIDR block (No IPv6 CIDR block selected), Tenancy (Default), and Number of Availability Zones (AZs) (Info, Choose the number of AZs in which to provision subnets. We recommend at least).
- Preview:** Shows the proposed VPC structure:
  - VPC:** project-vpc (Your AWS virtual network).
  - Subnets (4):** ap-northeast-1a (project-subnet-public1-ap-northeast-1a, project-subnet-private1-ap-northeast-1a), ap-northeast-1c (project-subnet-public2-ap-northeast-1c, project-subnet-private2-ap-northeast-1c).
  - Route tables (3):** project-rtb-public, project-rtb-private1, project-rtb-private2.

A large orange arrow points to the "VPC and more" button in the VPC settings section.

# AWS Console

The screenshot shows the AWS VPC Create VPC wizard. On the left, the 'VPC settings' section is visible, containing fields for creating resources (VPC only or VPC and more), name tag auto-generation (auto-generated to 'kbi-0092-main'), IPv4 CIDR block ('10.0.0.16 / 16'), IPv6 CIDR block (No IPv6 CIDR block selected), tenancy (Default), and availability zones (Number of Availability Zones (AZs) - Choose the number of AZs in which to provision subnets. We recommend at least 1). A large orange arrow points from the bottom left towards the 'Name tag auto-generation' field. On the right, the 'Preview' section shows a hierarchical diagram of the resources being created: a central 'VPC' node labeled 'kbi-0092-main-vpc' branching down to four 'Subnets (4)' nodes (public1-ap-northeast-1a, private1-ap-northeast-1a, public2-ap-northeast-1c, private2-ap-northeast-1c), which further branch down to eight 'Route tables (3)' nodes (rtb-public1, rtb-private1, rtb-public2, rtb-private2). A second orange arrow points from the bottom right towards the 'Route tables (3)' section.

aws Services Search for services, features, blogs, docs, and more [Option+S] Tokyo kbi-0092 @ 4078-1521-9100

VPC > Your VPCs > Create VPC

## Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances. Mouse over a resource to highlight the related resources.

**Introducing the new create VPC experience**  
We've designed the new create VPC to make it easier to use. The changes include a new visualization of the resources that will be created.  
[Let us know what you think.](#)

### VPC settings

**Resources to create Info**  
Create only the VPC resource or the VPC and other networking resources.

VPC only

VPC and more

**Name tag auto-generation Info**  
Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.

Auto-generate  
kbi-0092-main

**IPv4 CIDR block Info**  
Determine the starting IP and the size of your VPC using CIDR notation.

10.0.0.16 65,536 IPs

**IPv6 CIDR block Info**  
 No IPv6 CIDR block

Amazon-provided IPv6 CIDR block

**Tenancy Info**  
Default

**Number of Availability Zones (AZs) Info**  
Choose the number of AZs in which to provision subnets. We recommend at least 1

### Preview

**VPC Show details**  
Your AWS virtual network  
kbi-0092-main-vpc

**Subnets (4)**  
Subnets within this VPC

**ap-northeast-1a**  
kbi-0092-main-subnet-public1-ap-northeast-1a  
kbi-0092-main-subnet-private1-ap-northeast-1a

**ap-northeast-1c**  
kbi-0092-main-subnet-public2-ap-northeast-1c  
kbi-0092-main-subnet-private2-ap-northeast-1c

**Route tables (3)**  
Route network traffic to

kbi-0092-main-rtb-public1  
kbi-0092-main-rtb-private1  
kbi-0092-main-rtb-public2  
kbi-0092-main-rtb-private2

# VPC Wizard

S | Services | Search for services, features, blogs, docs, and more [Option+S] | Tokyo | kbi-0092 @ 4078-1521-9100 | ⓘ

**Preview**

The screenshot shows the AWS VPC Wizard interface. On the left, there are several configuration sections:

- Number of Availability Zones (AZs)**: Set to 2.
- Number of public subnets**: Set to 2.
- Number of private subnets**: Set to 4.
- NAT gateways (\$)**: Set to None.
- VPC endpoints**: Set to S3 Gateway.
- DNS options**: Checkboxes for "Enable DNS hostnames" and "Enable DNS resolution" are checked.

On the right, the **Preview** section displays the resulting VPC structure:

- VPC**: kbi-0092-main-vpc
- Subnets (4)**:
  - ap-northeast-1a: kbi-0092-main-subnet-public1-ap, kbi-0092-main-subnet-private1-ap
  - ap-northeast-1c: kbi-0092-main-subnet-public2-ap, kbi-0092-main-subnet-private2-ap
- Route tables (3)**:
  - kbi-0092-main-rtb-p
  - kbi-0092-main-rtb-p
  - kbi-0092-main-rtb-p

A large orange arrow points from the bottom left towards the **Create VPC** button at the bottom center.

Feedback | Looking for language selection? Find it in the new Unified Settings ⓘ | © 2022, Amazon Web Services, Inc. or its affiliates. | Privacy | Terms | Cookie preferences

# VPC Wizard

The screenshot shows the AWS VPC Wizard interface. At the top, there's a navigation bar with the AWS logo, a services menu, a search bar containing "Search for services, features, blogs, docs, and more", and a keyboard shortcut "[Option+S]". On the right side of the bar are icons for notifications, help, region selection ("Tokyo"), and user account ("kbi-0092 @ 4078-1521-9100").

The main content area shows the "Create VPC workflow" progress. A blue header box says "Creating VPC Resources" and "Thank you for using the new create VPC experience. [Let us know what you think.](#)". Below this, a progress bar indicates "71%" completion. The workflow steps are listed under "Create route table" and "Details".

**Create route table:**

- ✓ Create VPC: vpc-0fe8c6e35561155f6 [ ]
- ✓ Enable DNS hostnames
- ✓ Enable DNS resolution
- ✓ Verifying VPC creation: vpc-0fe8c6e35561155f6 [ ]
- ✓ Create S3 endpoint: vpce-04f166385aaff990b [ ]
- ✓ Create subnet: subnet-022c3e01730133414 [ ]
- ✓ Create subnet: subnet-037d1d305f5a91518 [ ]
- ✓ Create subnet: subnet-08e41a23da07fec33 [ ]
- ✓ Create subnet: subnet-009f4713a3f660b00 [ ]
- ✓ Create internet gateway: igw-0f2680a92942c6816 [ ]
- ✓ Attach internet gateway to the VPC
- ✓ Create route table: rtb-0aef39c71c193e12e [ ]
- ✓ Create route
- ✓ Associate route table
- ✓ Associate route table
- ... Create route table
- Associate route table
- Create route table
- Associate route table
- Verify route table creation
- Associate S3 endpoint with private subnet route tables: vpce-04f166385aaff990b [ ]

**Details:**

- ✓ Create VPC: vpc-0fe8c6e35561155f6 [ ]
- ✓ Enable DNS hostnames
- ✓ Enable DNS resolution
- ✓ Verifying VPC creation: vpc-0fe8c6e35561155f6 [ ]
- ✓ Create S3 endpoint: vpce-04f166385aaff990b [ ]
- ✓ Create subnet: subnet-022c3e01730133414 [ ]
- ✓ Create subnet: subnet-037d1d305f5a91518 [ ]
- ✓ Create subnet: subnet-08e41a23da07fec33 [ ]
- ✓ Create subnet: subnet-009f4713a3f660b00 [ ]
- ✓ Create internet gateway: igw-0f2680a92942c6816 [ ]
- ✓ Attach internet gateway to the VPC
- ✓ Create route table: rtb-0aef39c71c193e12e [ ]
- ✓ Create route
- ✓ Associate route table
- ✓ Associate route table
- ... Create route table
- Associate route table
- Create route table
- Associate route table
- Verify route table creation
- Associate S3 endpoint with private subnet route tables: vpce-04f166385aaff990b [ ]

# VPC Wizard

The screenshot shows the AWS VPC Wizard interface after a successful VPC creation. The top navigation bar includes the AWS logo, Services menu, search bar, and account information for 'kbi-0092 @ 4078-1521-9100'. The breadcrumb path is 'VPC > Your VPCs > Create VPC > Create VPC resources'. The main title is 'Create VPC workflow'. A success message box displays 'Creating VPC Resources' and 'Thank you for using the new create VPC experience. Let us know what you think.' Below this, the 'Success' section lists all completed steps in green, each with a link icon:

- ✓ Create VPC: [vpc-0fe8c6e35561155f6](#)
- ✓ Enable DNS hostnames
- ✓ Enable DNS resolution
- ✓ Verifying VPC creation: [vpc-0fe8c6e35561155f6](#)
- ✓ Create S3 endpoint: [vpce-04f166385aaff990b](#)
- ✓ Create subnet: [subnet-022c3e01730133414](#)
- ✓ Create subnet: [subnet-037d1d305f5a91518](#)
- ✓ Create subnet: [subnet-08e41a23da07fec33](#)
- ✓ Create subnet: [subnet-009f4713a3f660b00](#)
- ✓ Create internet gateway: [igw-0f2680a92942c6816](#)
- ✓ Attach internet gateway to the VPC
- ✓ Create route table: [rtb-0aef39c71c193e12e](#)
- ✓ Create route
- ✓ Associate route table
- ✓ Associate route table
- ✓ Create route table: [rtb-0c3281cdeedcf5745](#)
- ✓ Associate route table
- ✓ Create route table: [rtb-0d76b710a1962a3db](#)
- ✓ Associate route table
- ✓ Verifying route table creation
- ✓ Associate S3 endpoint with private subnet route tables: [vpce-04f166385aaff990b](#)

A large orange 'View VPC' button is at the bottom right. The footer includes links for Feedback, Unified Settings, Copyright (2022), Privacy, Terms, and Cookie preferences.

# VPC Wizard

The screenshot shows the AWS VPC Wizard interface. The top navigation bar includes the AWS logo, Services, a search bar, and account information for Tokyo (kbi-0092 @ 4078-1521-9100). A sidebar on the left provides navigation links for VPC dashboard, EC2 Global View, Filter by VPC, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP Option Sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways, Peering connections), Security (Network ACLs, Security groups), Network Analysis (Reachability Analyzer, Network Access Analyzer), and DNS firewall.

The main content area displays the details for the VPC **vpc-0fe8c6e35561155f6 / kbi-0092-main-vpc**. The **Details** tab is selected, showing the following configuration:

VPC ID: <b>vpc-0fe8c6e35561155f6</b>	State: <b>Available</b>	DNS hostnames: Enabled	DNS resolution: Enabled
Tenancy: Default	DHCP option set: <b>dopt-0a11fc123c7aff706</b>	Main route table: <b>rtb-077d292f6cb85e081</b>	Main network ACL: <b>acl-0fba9fc9a1e363c3</b>
Default VPC: No	IPv4 CIDR: <b>10.0.0.0/16</b>	IPv6 pool: -	IPv6 CIDR (Network border group): -
Route 53 Resolver DNS Firewall rule groups: Failed to load rule groups	Owner ID: <b>407815219100</b>		

The **CIDRs** tab is also visible, showing a table with one entry:

Address type	CIDR	Network Border Group	Pool	Status
IPv4	<b>10.0.0.0/16</b>	-	-	<b>Associated</b>

At the bottom, there are links for Feedback, Unified Settings, Privacy, Terms, and Cookie preferences.