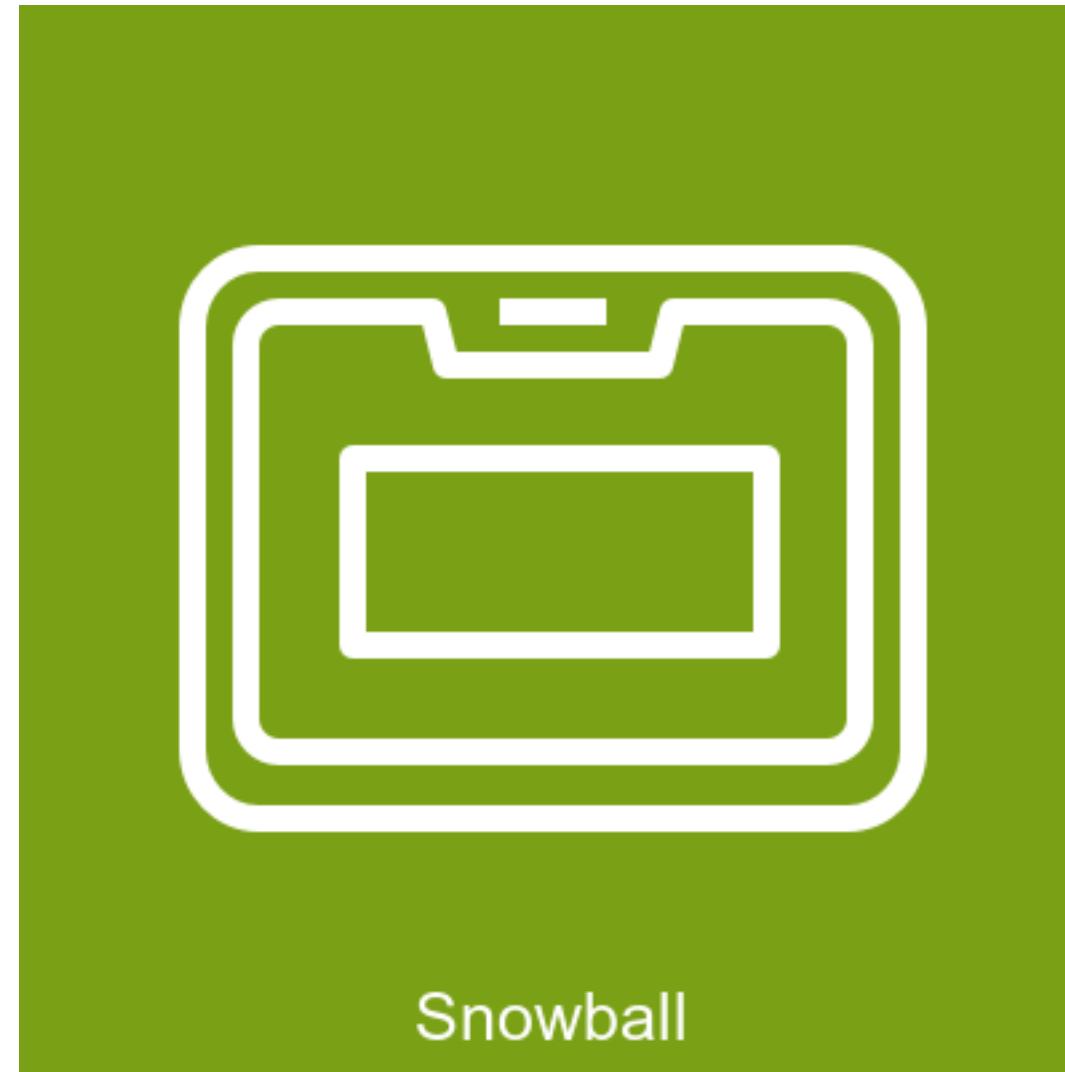
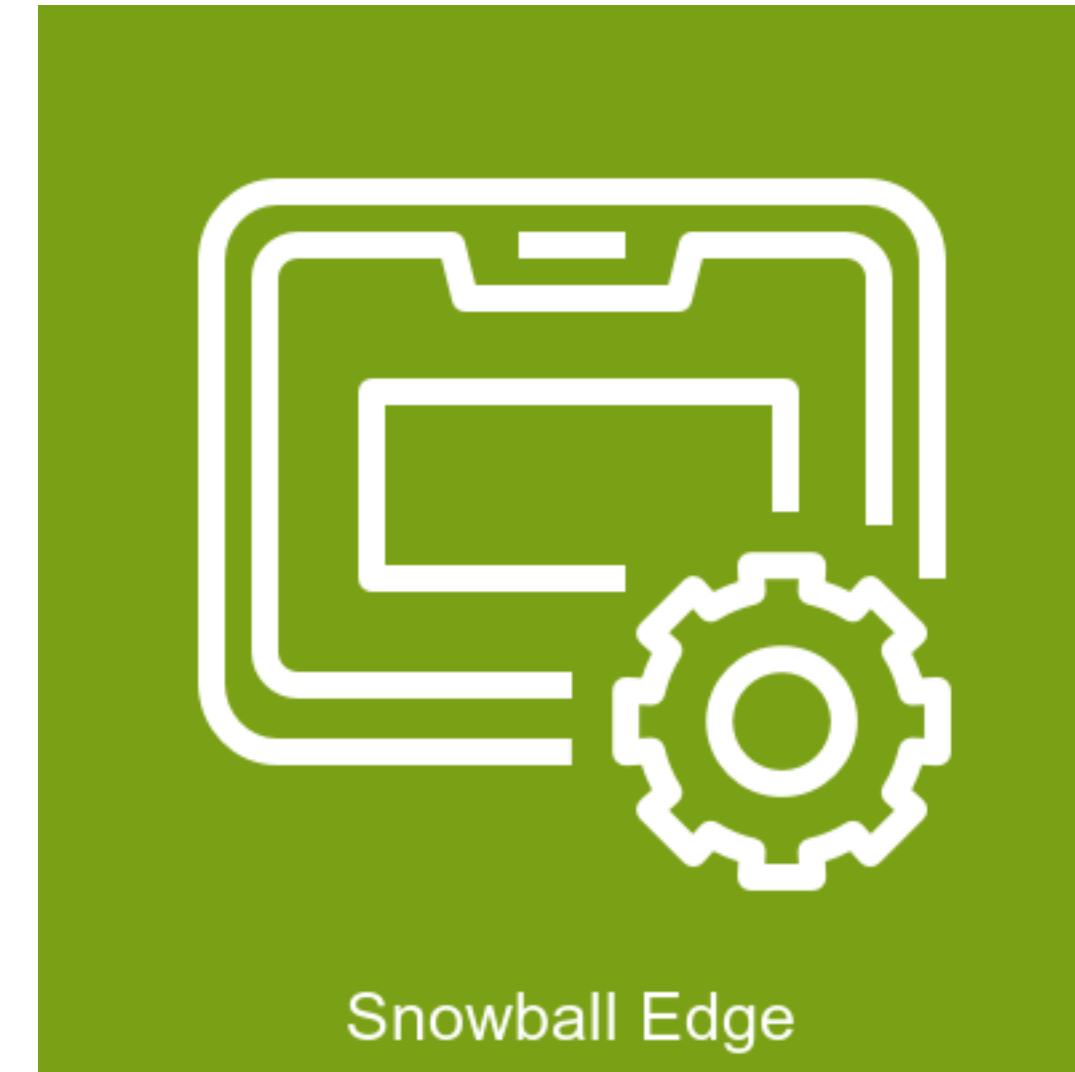




Snowcone



Snowball



Snowball Edge

# AWS SnowFamily

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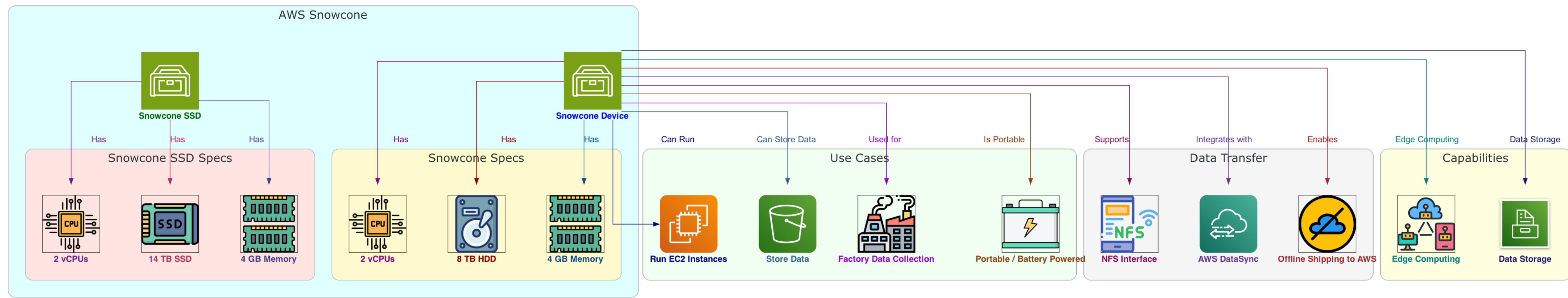


- 1. What is AWS Snowcone?
- 2. How AWS Snowcone Works
- 3. Use Cases
- 4. AWS Snowcone Device Specifications
- 5. AWS OpsHub
- 6. Snowball Edge
- 7. Device Config
- 8. AWS Snowball Edge features
- 9. Snowball Edge Device Options
- 10. Snowball Edge Storage Optimized (for Data Transfer) specifications
- 11. Device Use Cases
- 12. Usage Workflow



Snowcone

# What is AWS Snowcone?



<b>1.</b> 🌎 Portable, rugged, and secure device	<b>2.</b> ⚡ Collect, process, and move data to AWS Cloud	<b>3.</b> 🏭 Ideal for austere edge environments	<b>4.</b> 📦 Available in two flavors	<b>5.</b> 💻💡 Capable of running EC2 instances
Easily transportable	Offline: Ship device Online: AWS DataSync	Limited connectivity Lack of space, power, cooling	<b>Snowcone</b> 2 vCPUs 4 GB memory 8 TB HDD storage	
Durable and secure			<b>Snowcone SSD</b> 2 vCPUs 4 GB memory 14 TB SSD storage	
Designed for challenging environments				<b>6.</b> 🔒 Secure data storage
		<b>8.</b> ⚖ Lightweight at 4.5 lbs (2 kg)		<b>10.</b> 📈 NFS interface for data transfer
<b>7.</b> 📏 Small form factor: 8.94" x 5.85" x 3.25"		<b>9.</b> 💡 Battery-based operation, Wi-Fi interface		On-premises servers: Windows, Linux, macOS File-based applications

# How AWS Snowcone Works

1. 🌐 Request Snowcone devices via AWS Management Console

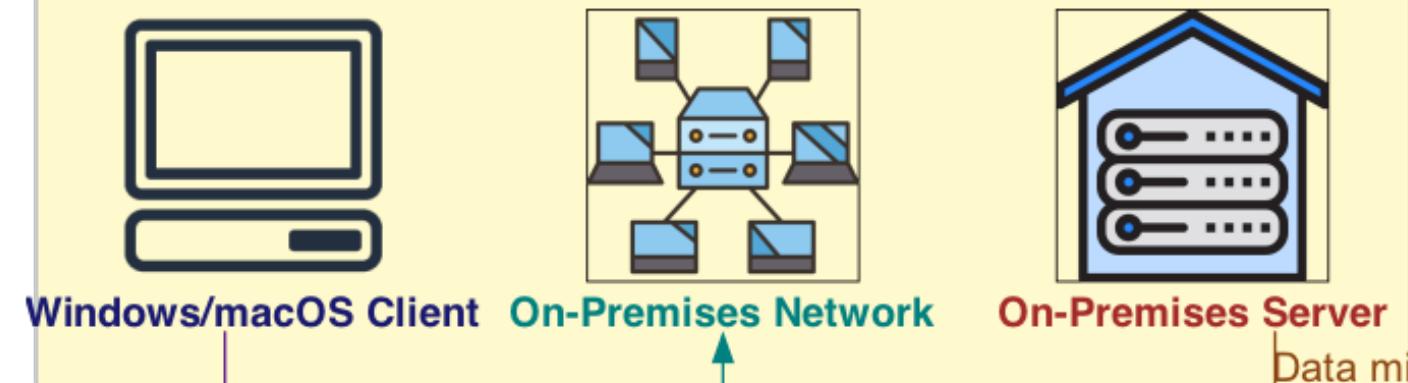
Specify data transfer, compute requirements

2. 🔒 Automatic configuration, encryption, and pre-installation

📦 S3 buckets, data, EC2 AMIs

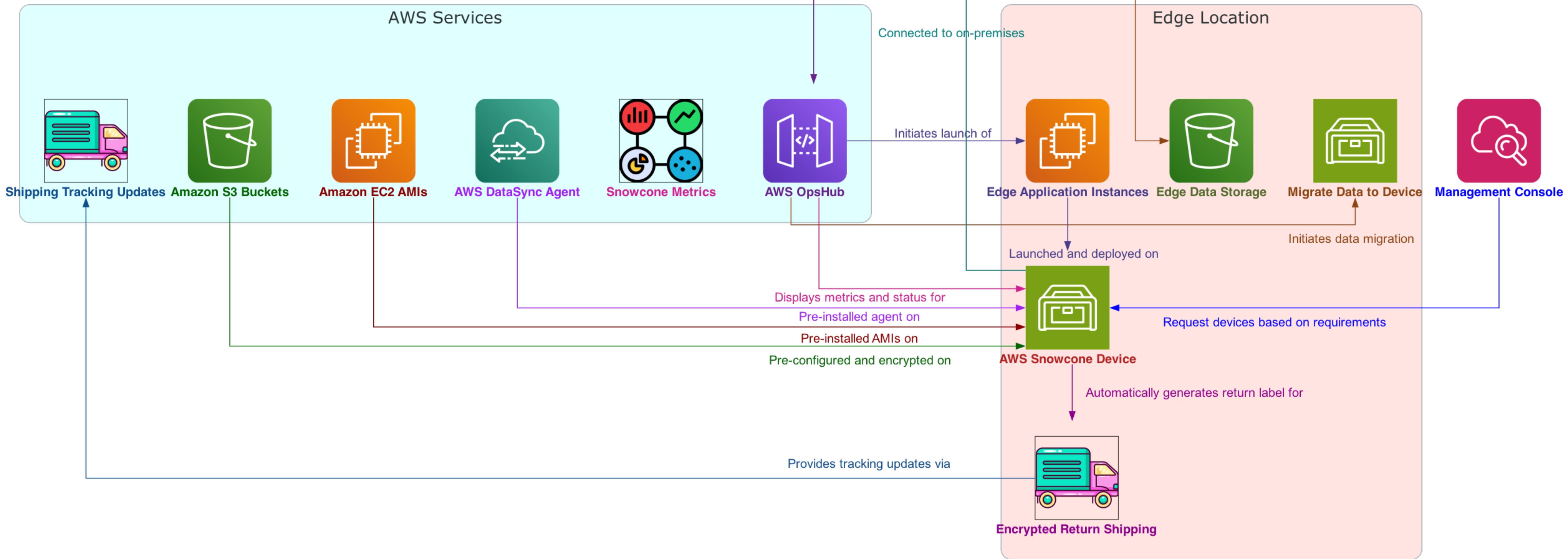
🔒 Configured, encrypted, pre-installed before shipping

On-Premises



3. 🚀 AWS DataSync agent pre-installed

🔄 Enables seamless data synchronization, transfer



# How AWS Snowcone Works

4. 🛡️ Connect Snowcone to on-premises network

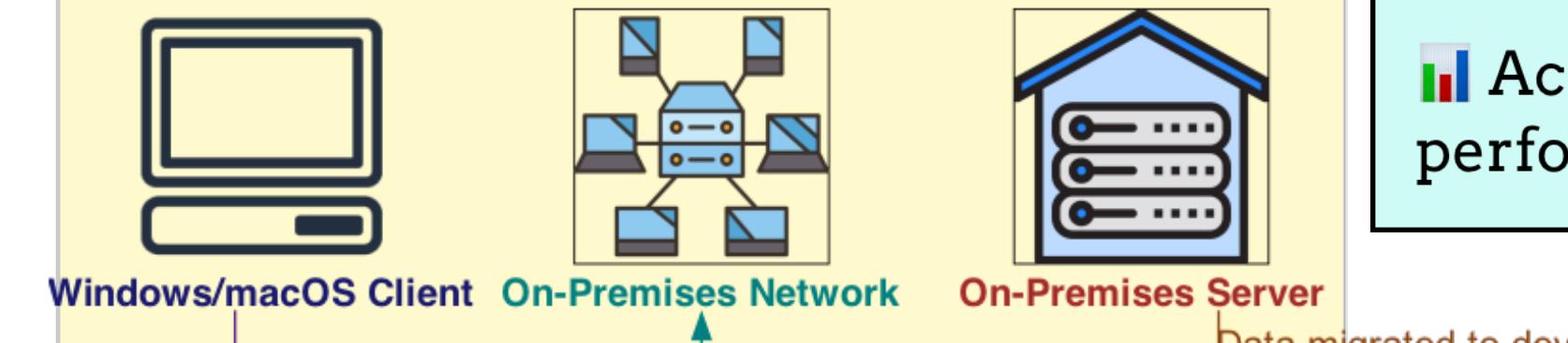
Set IP address manually or automatically (DHCP)

5. 🖥️ Install AWS OpsHub GUI application

On Windows or macOS client machine

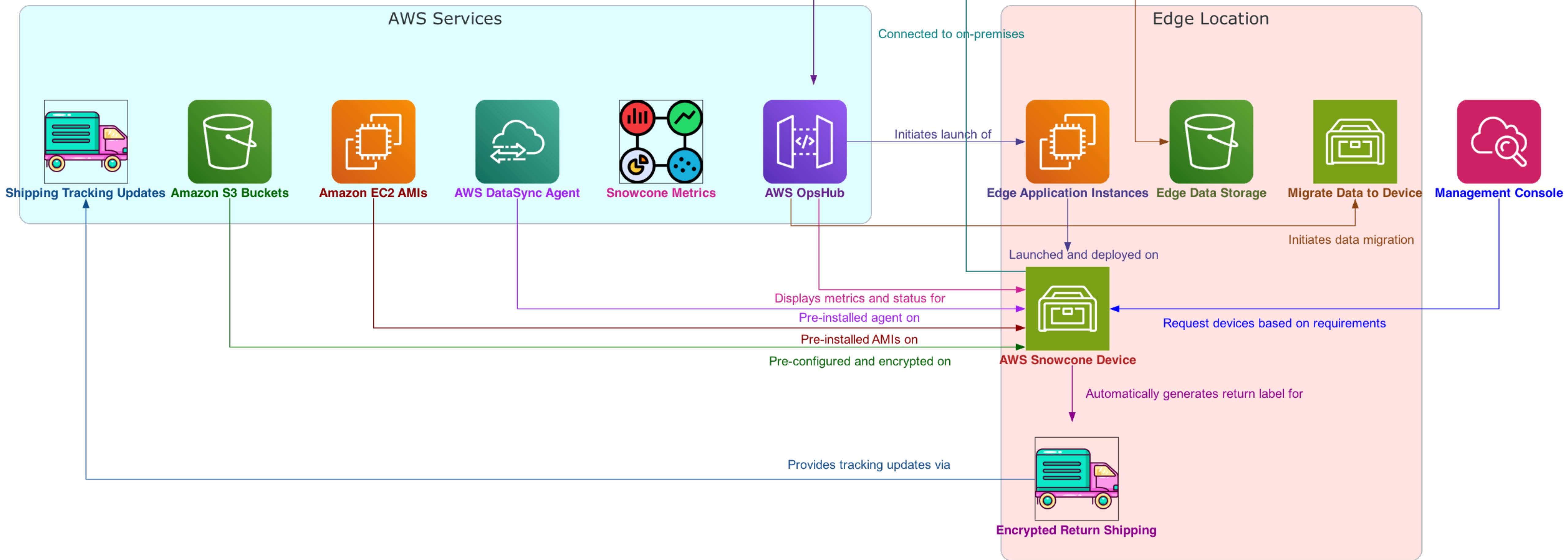
Manage Snowcone device

On-Premises

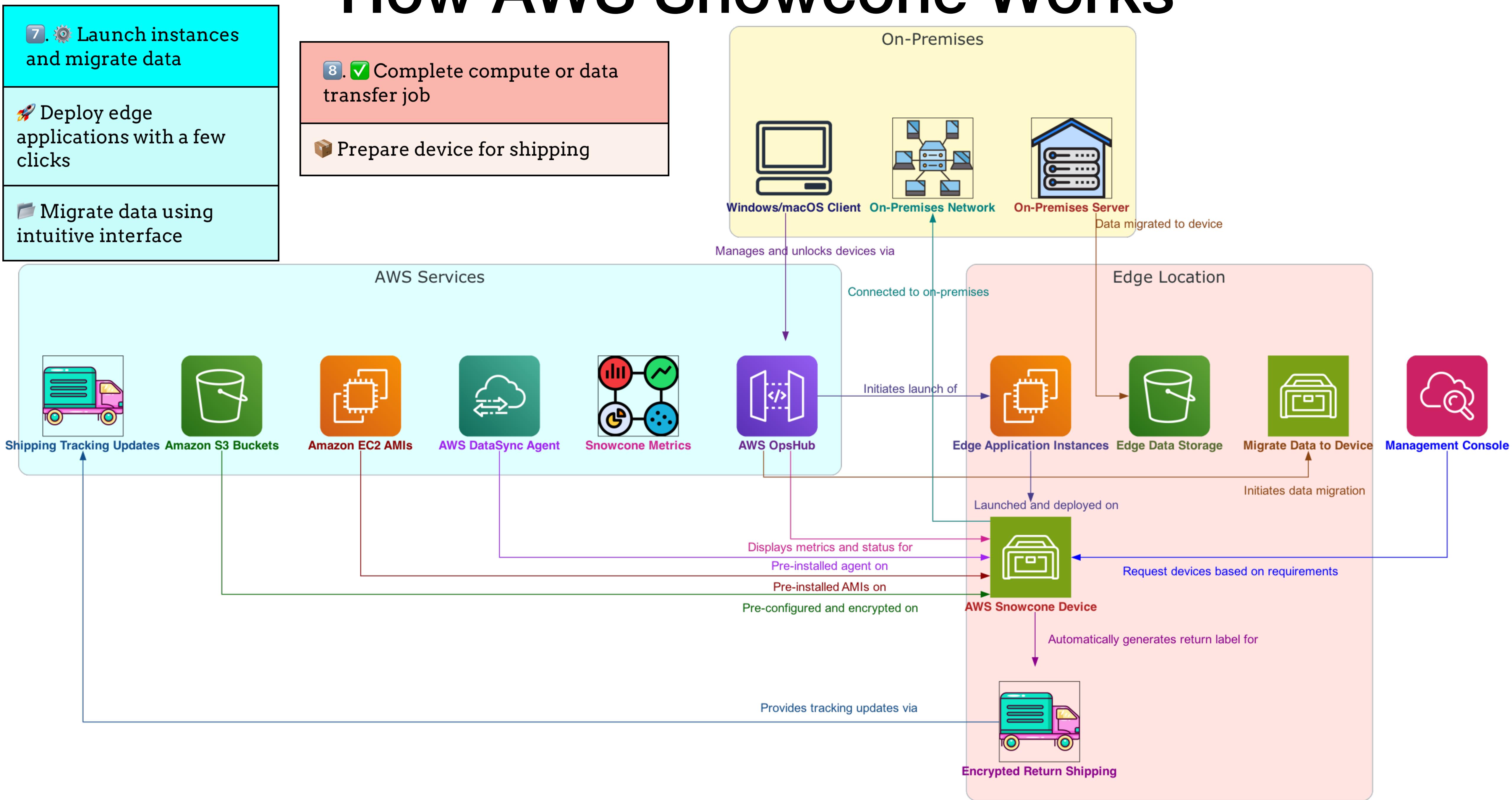


6. 🔒 Unlock device and view dashboard in AWS OpsHub

Access device metrics, status, performance



# How AWS Snowcone Works



# How AWS Snowcone Works

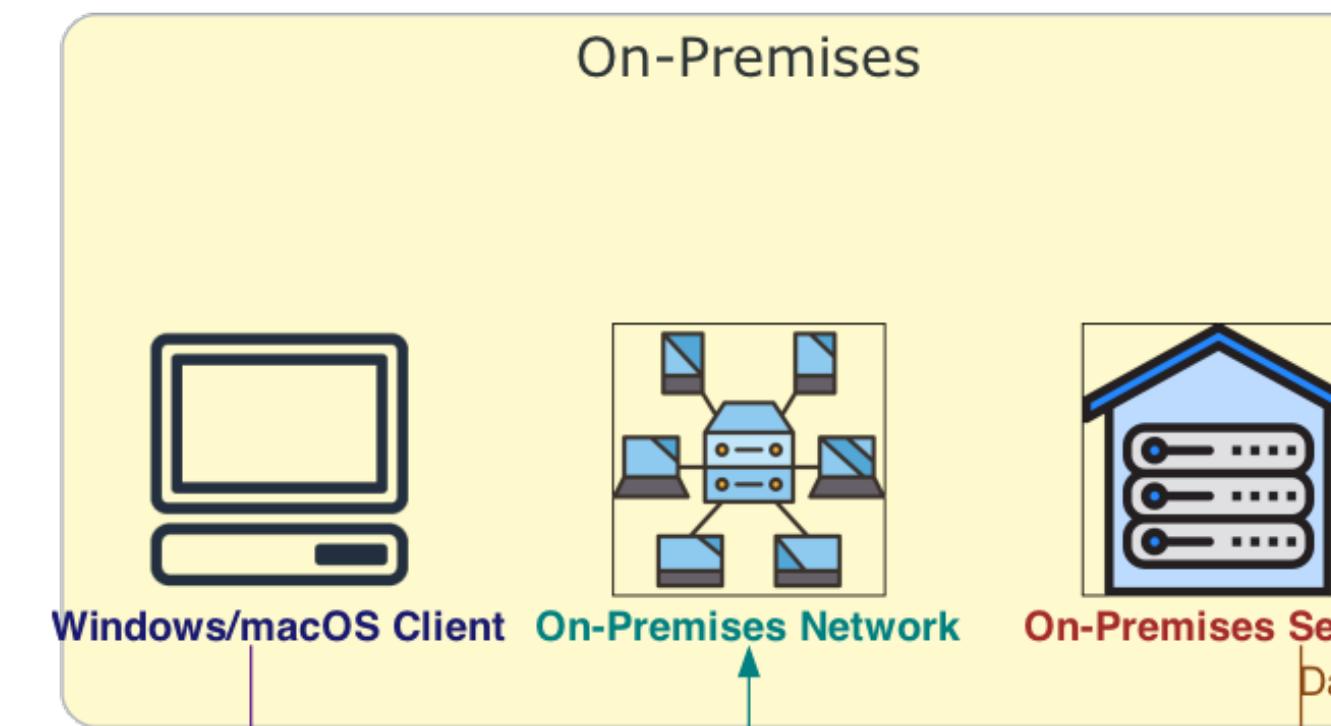
9. 📦 Automatic return address update

🖨️ E Ink shipping label updates automatically

🏢 Ensures delivery to correct AWS facility

10. ⏪ Receive tracking status

Via SNS, texts, emails, or console



Manages and unlocks devices via

Connected to on-premises

Initiates launch of

Edge Application Instances    Edge Data Storage

Migrate Data to Device

Management Console

Displays metrics and status for

Pre-installed agent on

Pre-installed AMIs on

Pre-configured and encrypted on

Request devices based on requirements

Initiates data migration

Launched and deployed on

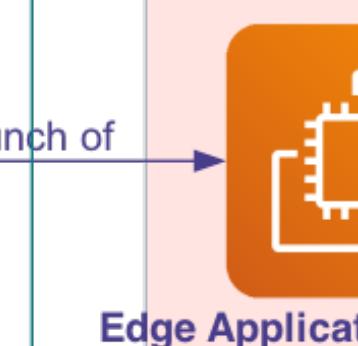
Automatically generates return label for

Provides tracking updates via

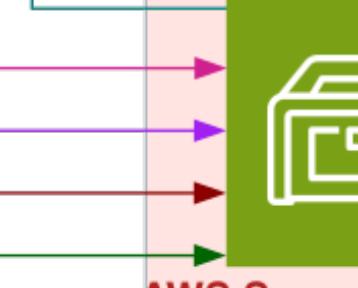
Encrypted Return Shipping



Initiates launch of



Launched and deployed on



Pre-configured and encrypted on

Pre-installed AMIs on

Pre-installed agent on

Displays metrics and status for

On-Premises

On-Premises Network

On-Premises Server

Windows/macOS Client

Management Console

Edge Location

Edge Application Instances

Edge Data Storage

Migrate Data to Device

Management Console

On-Premises

On-Premises Network

On-Premises Server

Windows/macOS Client

Management Console

On-Premises

On-Premises Network

On-Premises Server

Windows/macOS Client

Management Console

On-Premises

On-Premises Network

On-Premises Server

Windows/macOS Client

Management Console

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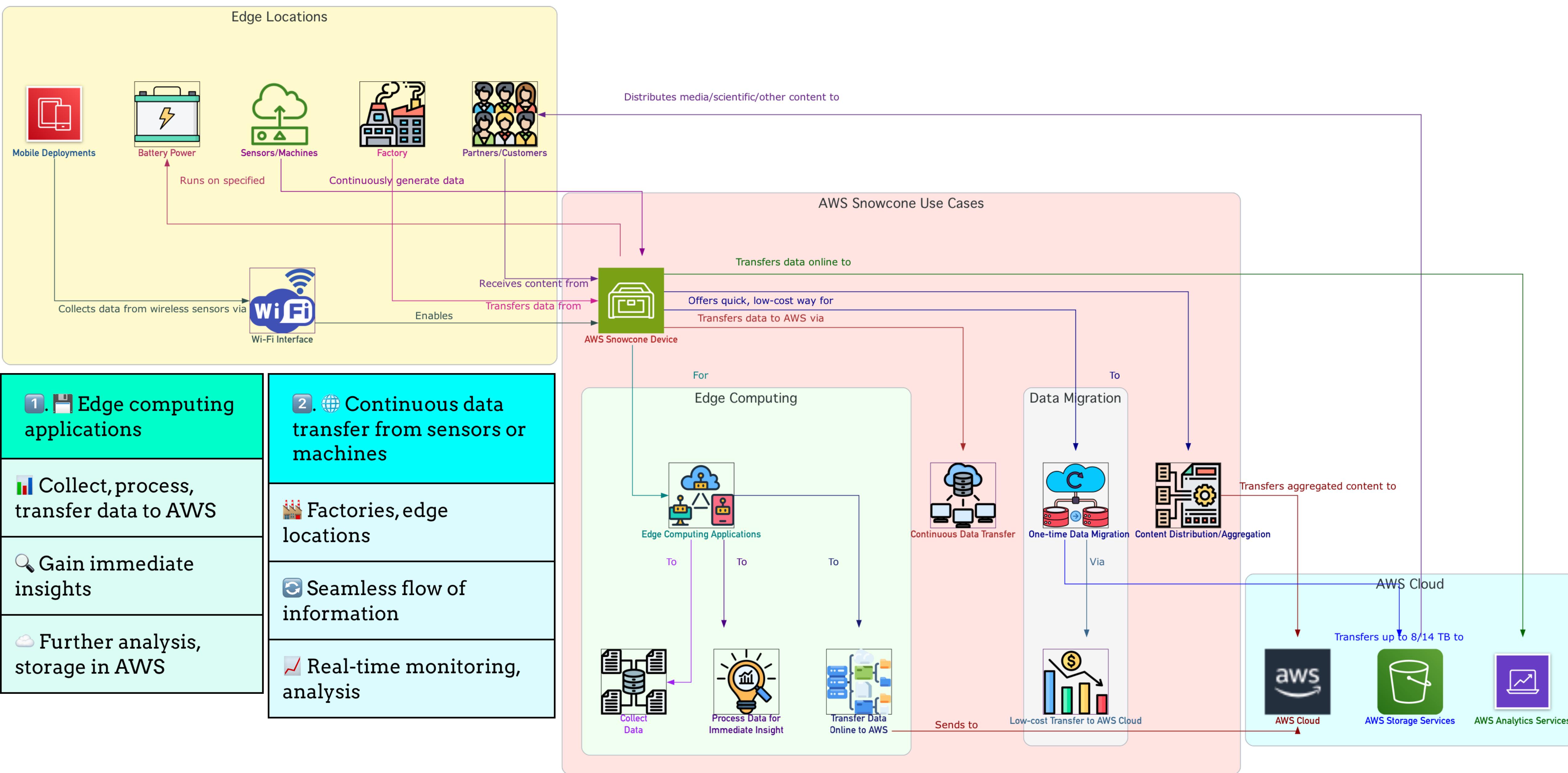
Windows/macOS Client

Management Console

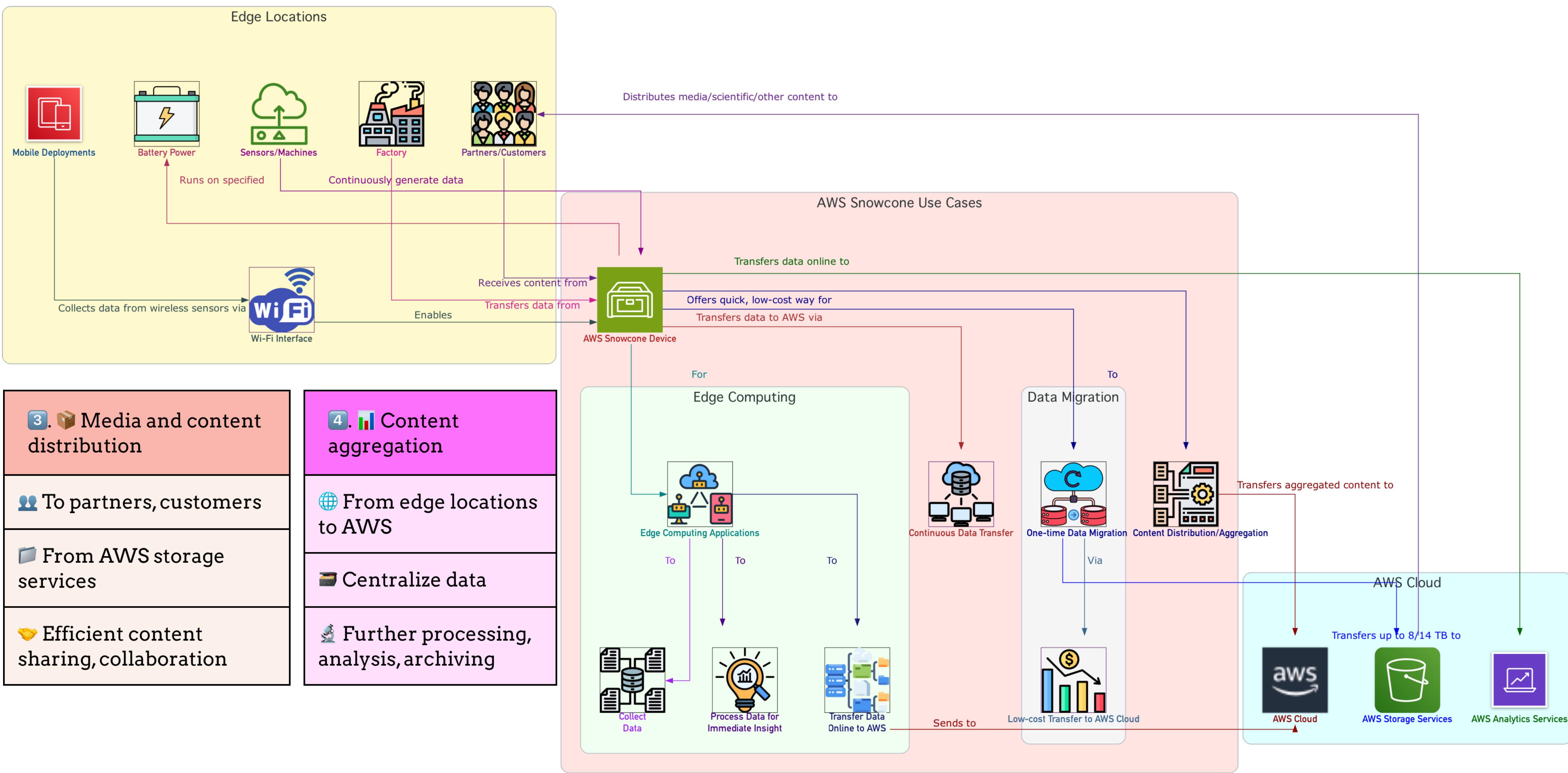
On-Premises

On-Premises

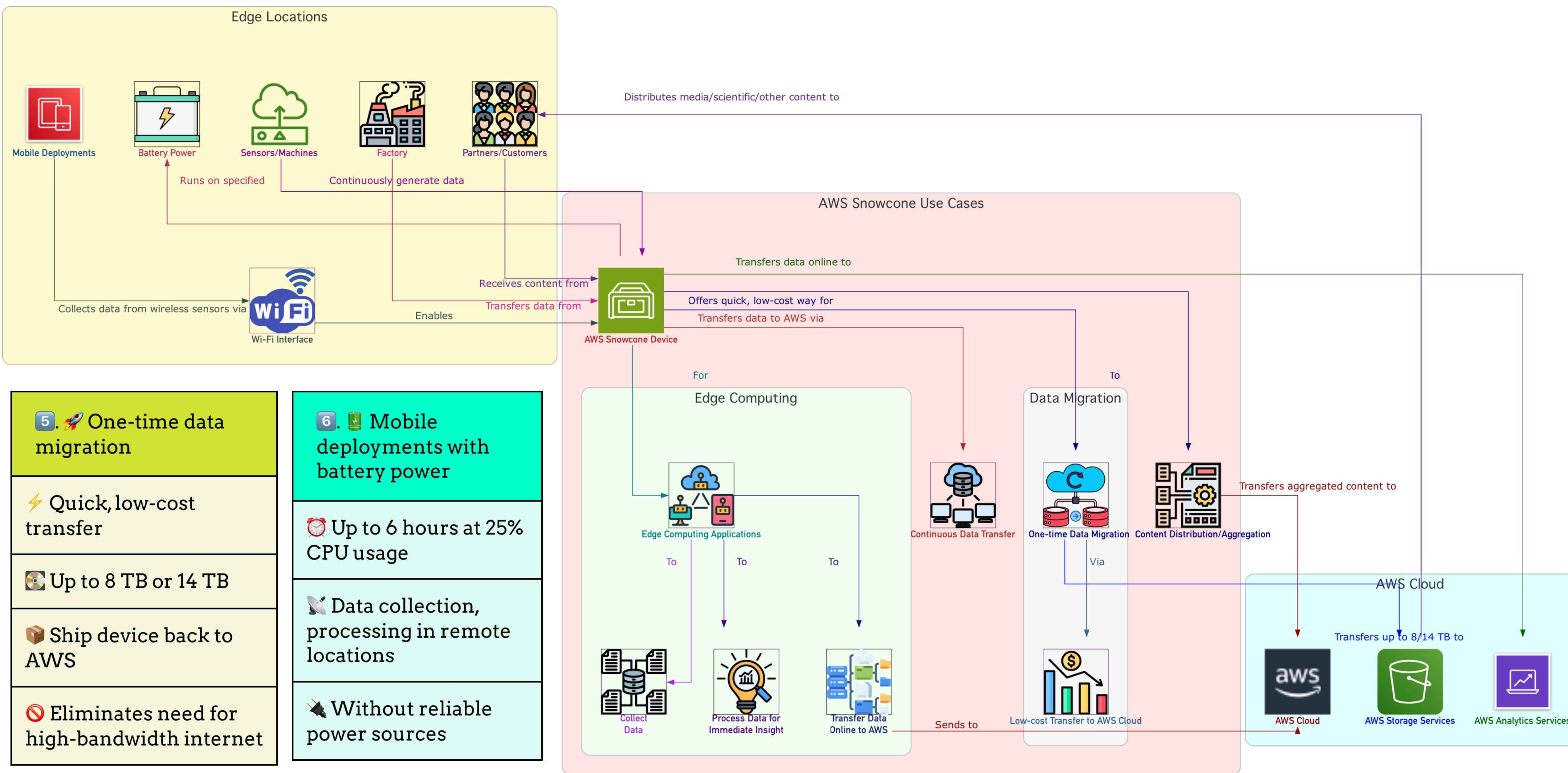
# Use Cases



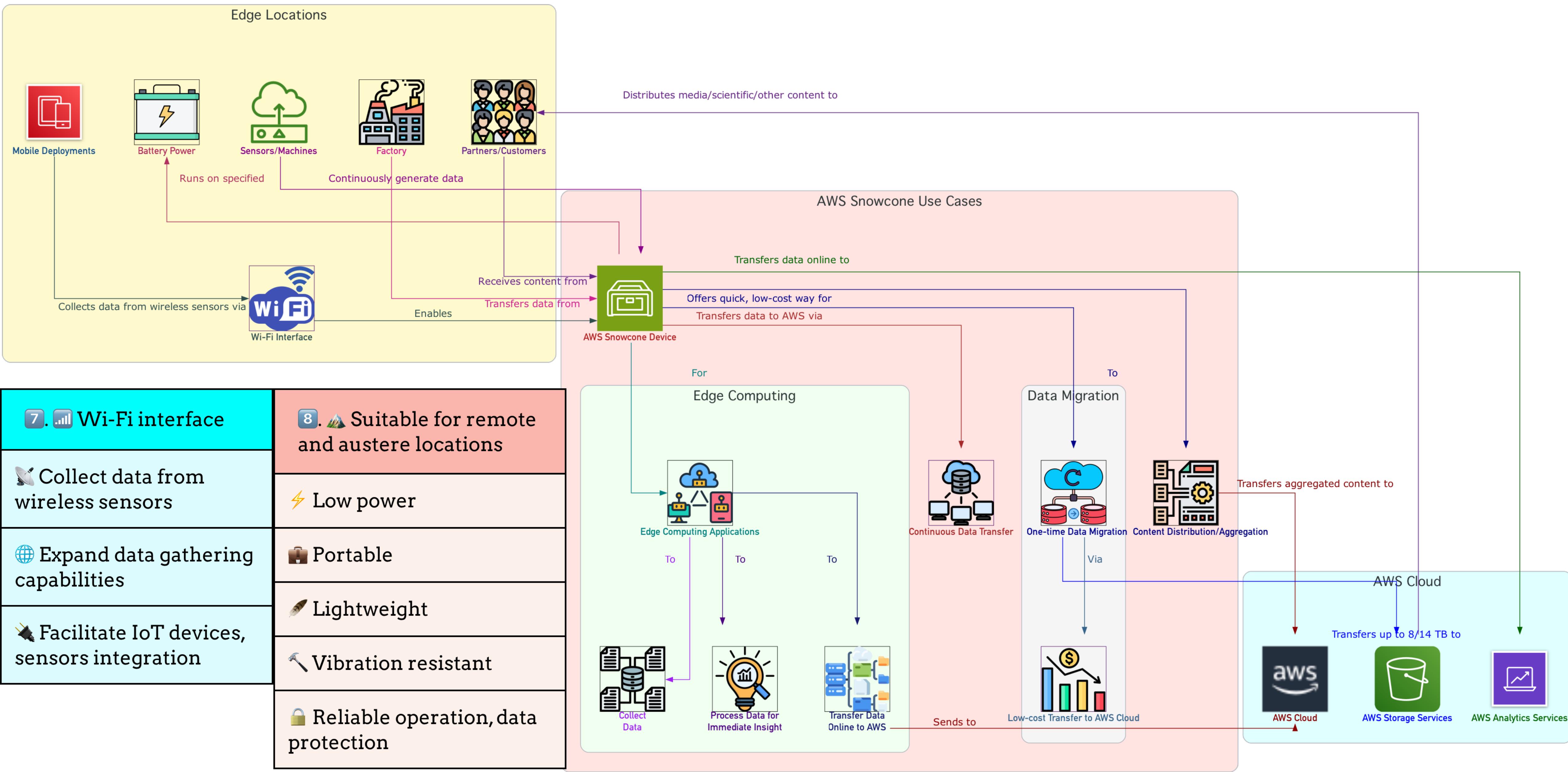
# Use Cases



# Use Cases



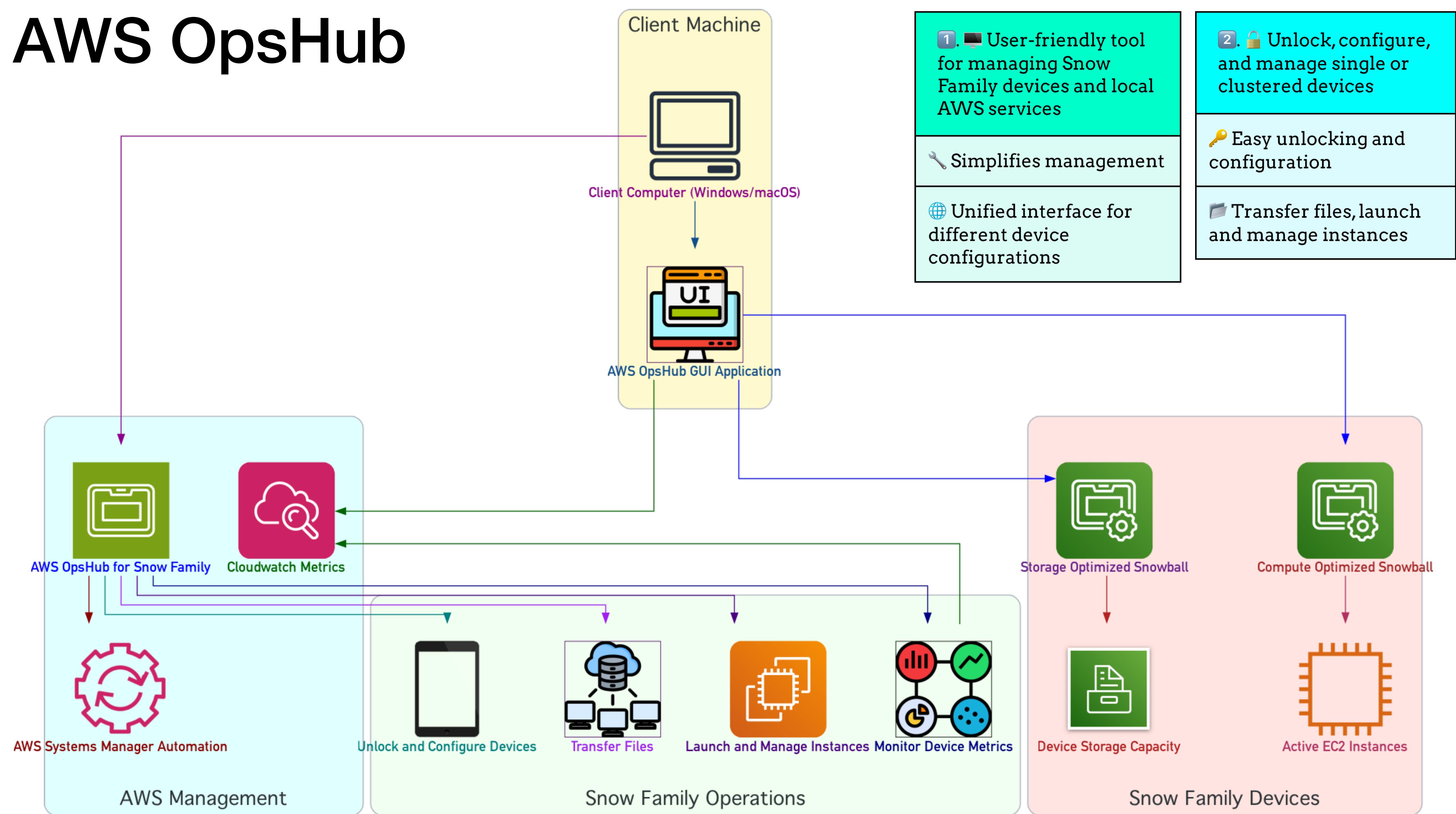
# Use Cases



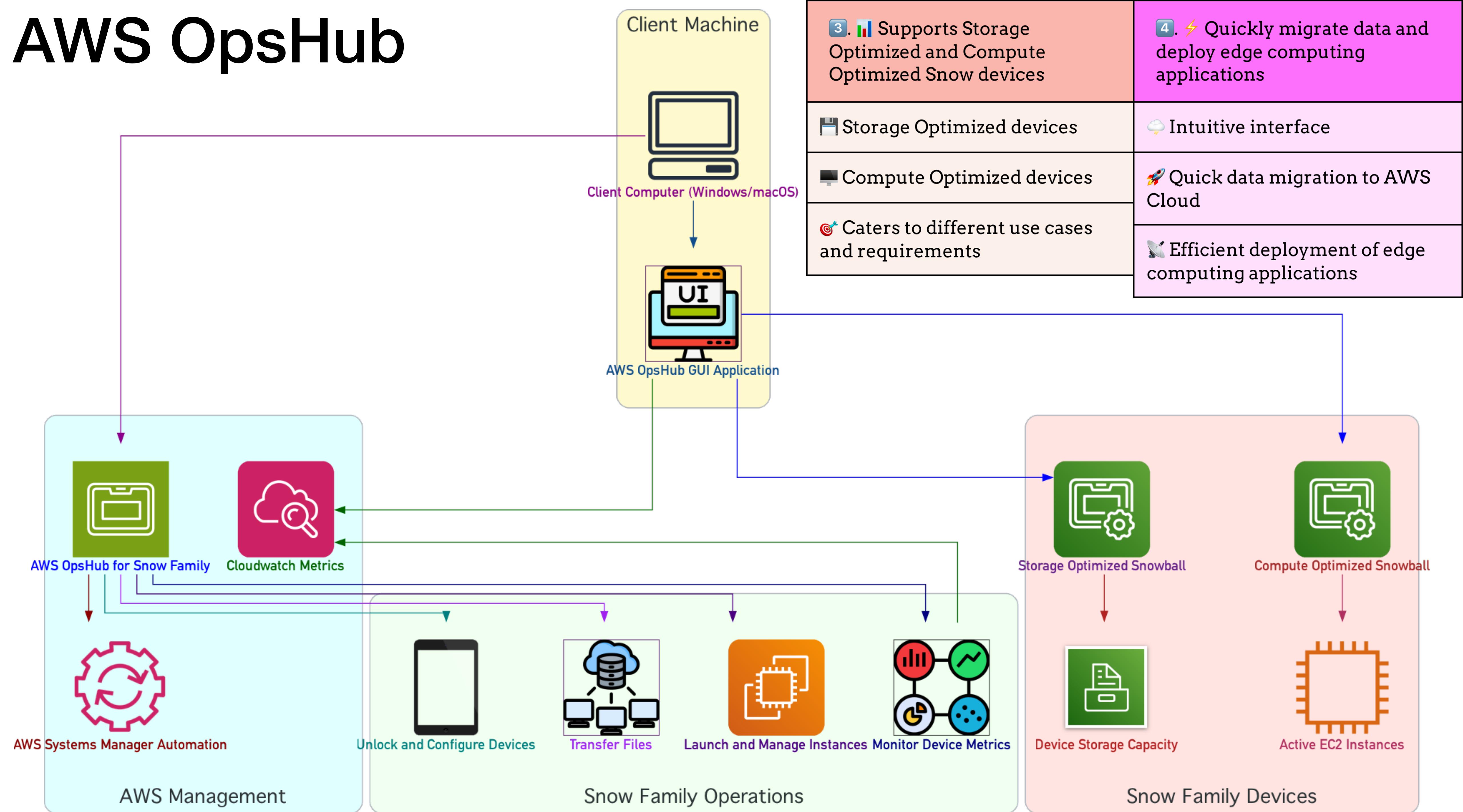
# AWS Snowcone Device Specifications

Item	Specification
Usage scenario	Industrial Internet of Things (IoT), transportation, healthcare IoT, content distribution, tactical edge computing, logistics, autonomous vehicle, data migration
Device size	9 inches long, 6 inches wide, and 3 inches tall (227 mm x 148.6 mm x 82.65 mm)
Device weight	4.5 lbs. (2.04 kg) for Snowcone and 4.6 lbs (2.09 kg) Snowcone SSD
Storage capacity	8 TB usable for Snowcone and 14 TB useable for Snowcone SSD
Onboard computing options	Amazon EC2 Amazon Machine Images (AMIs)
Encryption	Yes, 256-bit
Transfers through Network File System (NFS)	Yes
Transfers through Amazon S3 API	No
Portability	Battery-based operation
Wireless	Wi-Fi Note: Wi-Fi is available only in AWS Regions in North America.
Number of usable vCPUs	2 vCPUs
Available memory	4 GB
Network interfaces	2x 1/10 gigabit (Gb) - RJ45
AWS DataSync agent pre-installed	Yes
Typical job lifetime	Offline or online data transfer: Days to weeks Edge compute: Weeks to months
Max job length	Edge compute or on-going data transfer: Up to 360 days

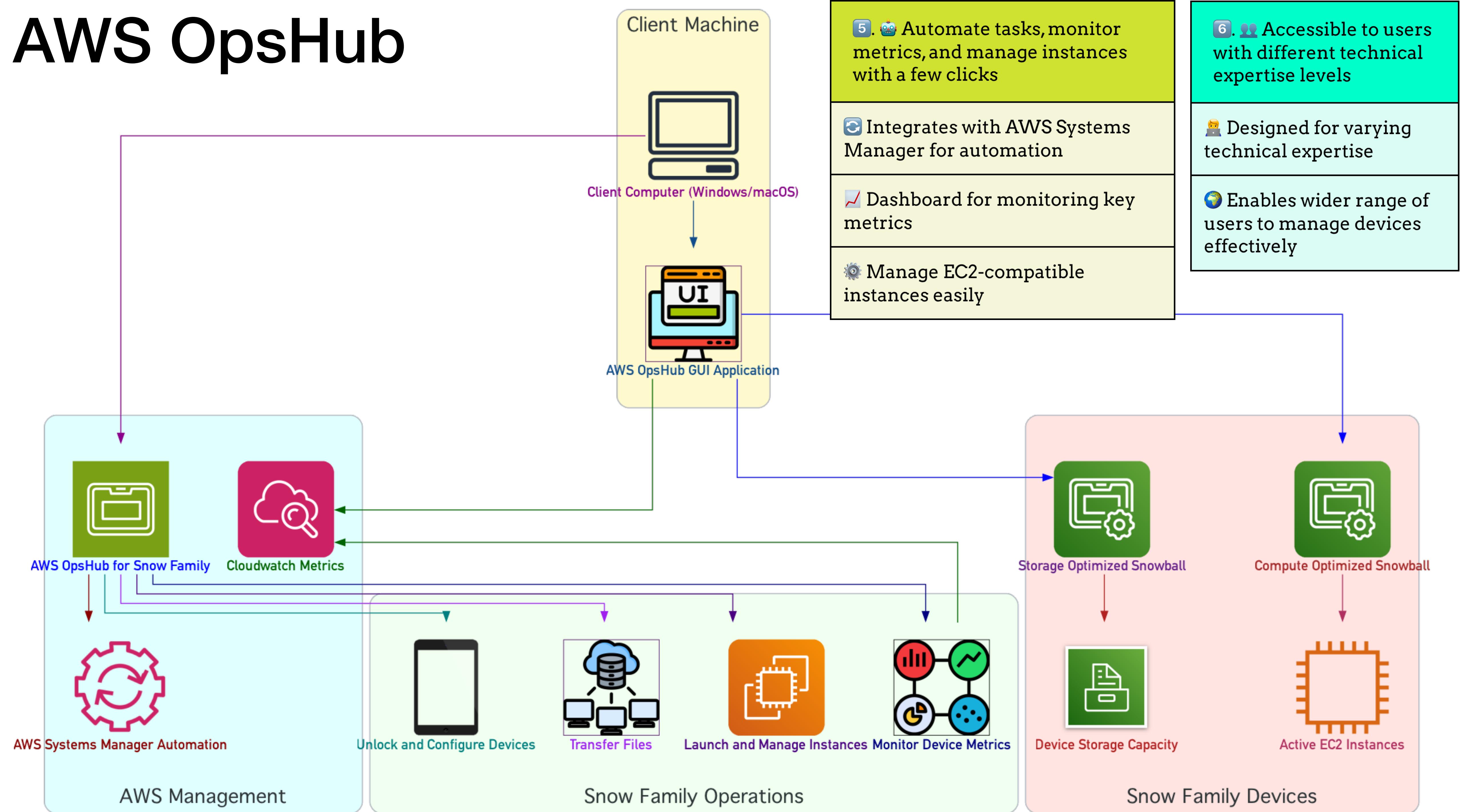
# AWS OpsHub



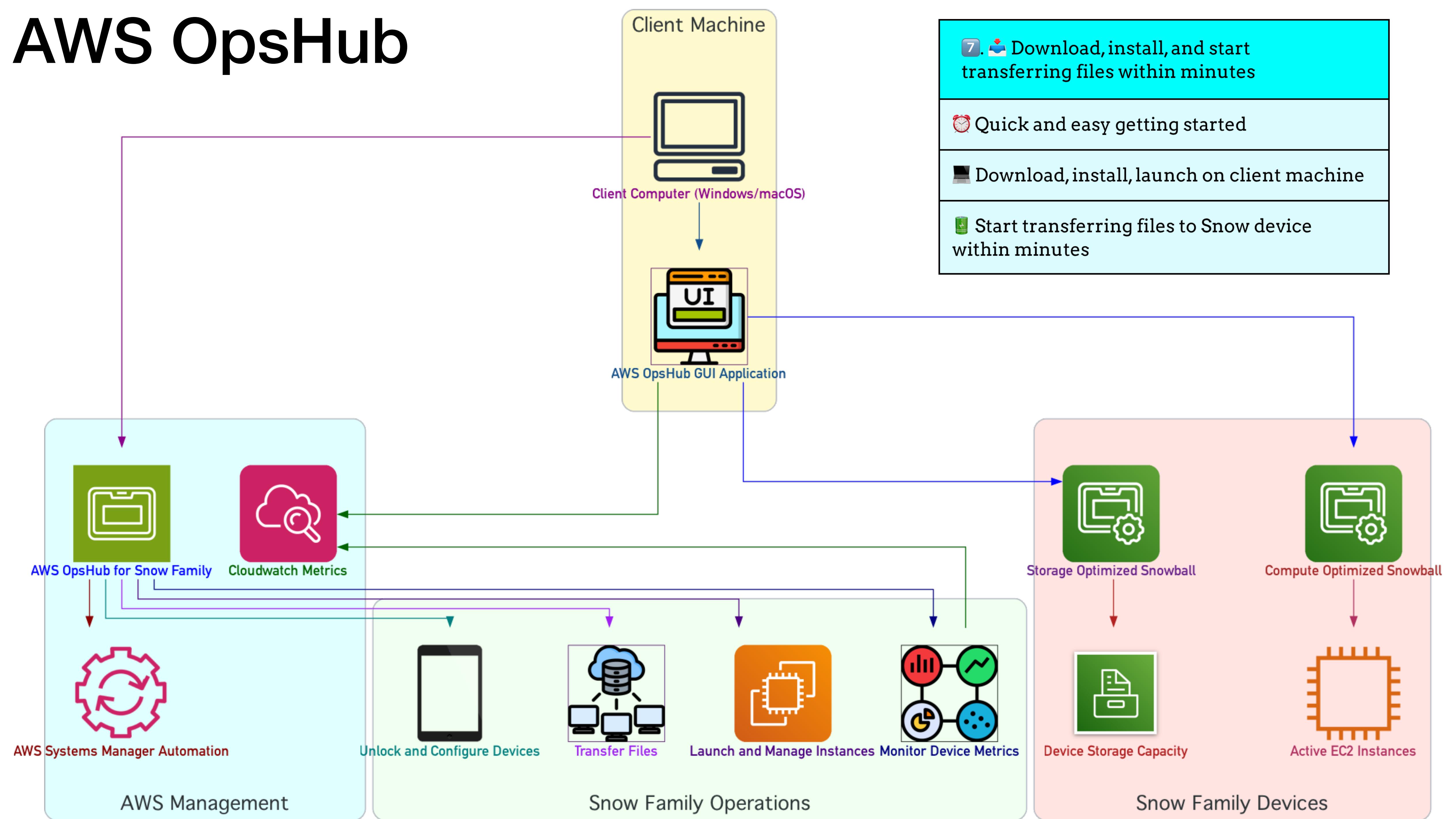
# AWS OpsHub



# AWS OpsHub



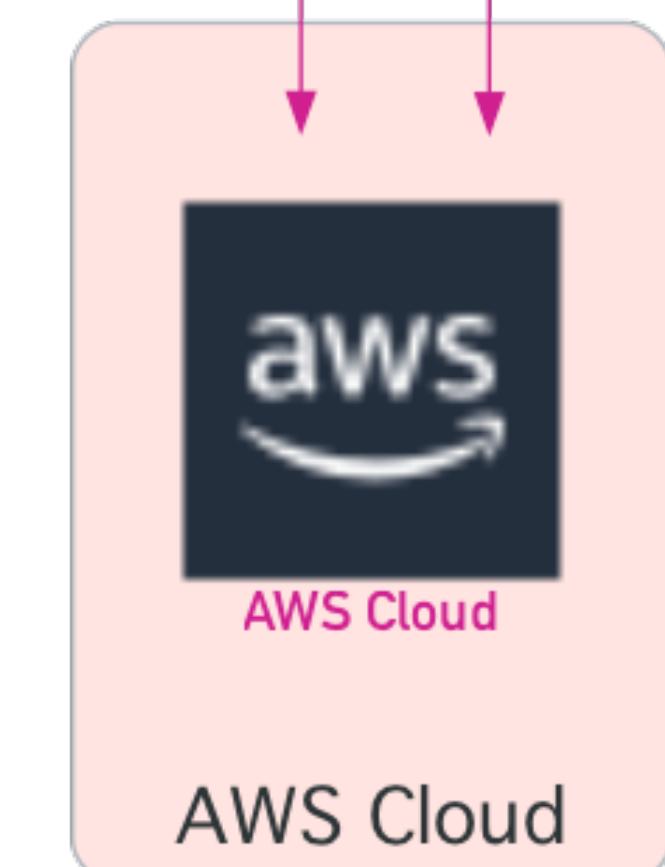
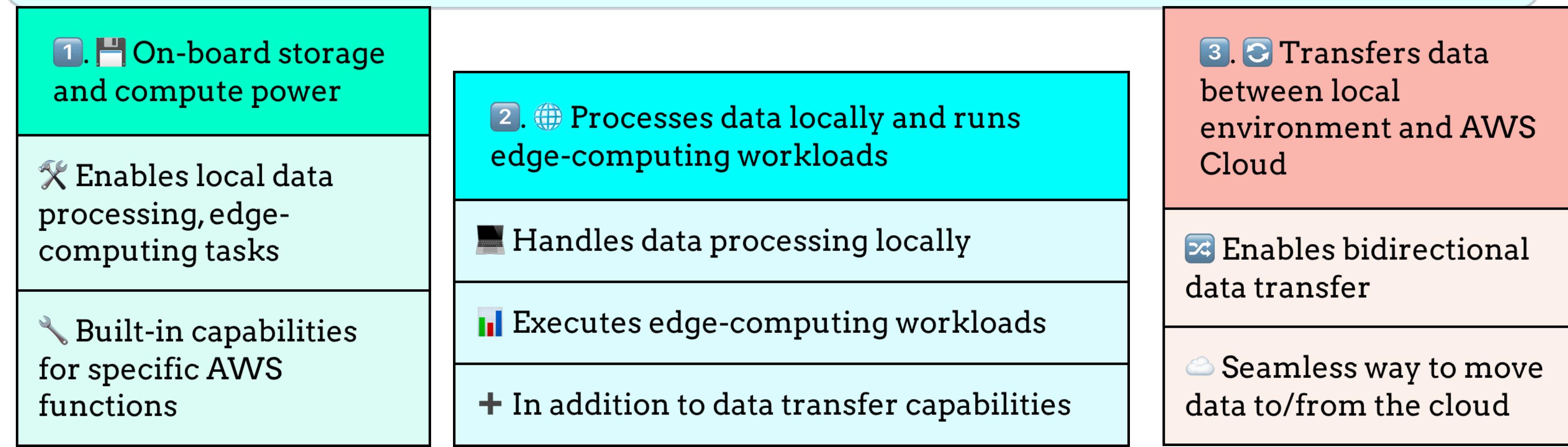
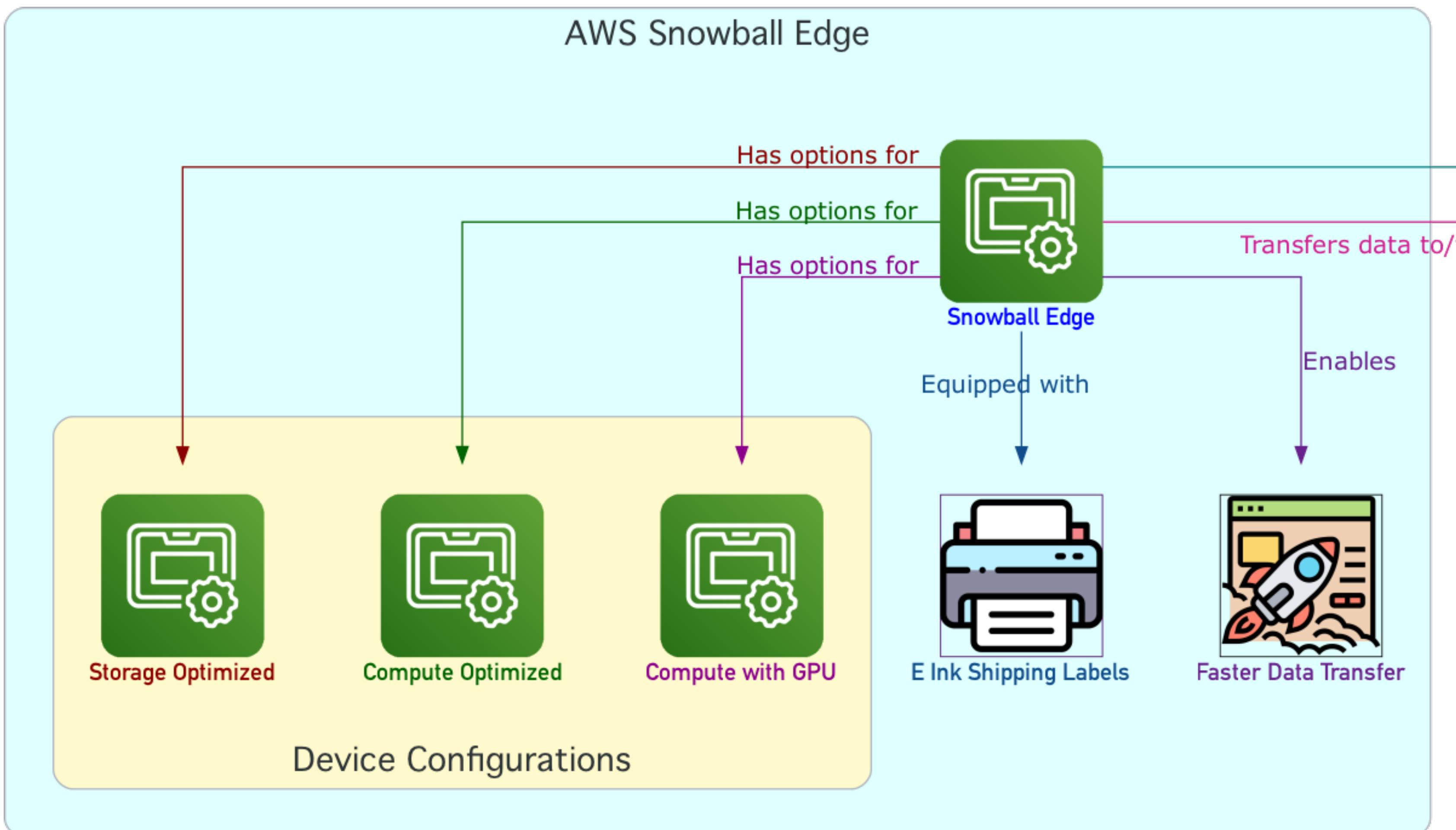
# AWS OpsHub



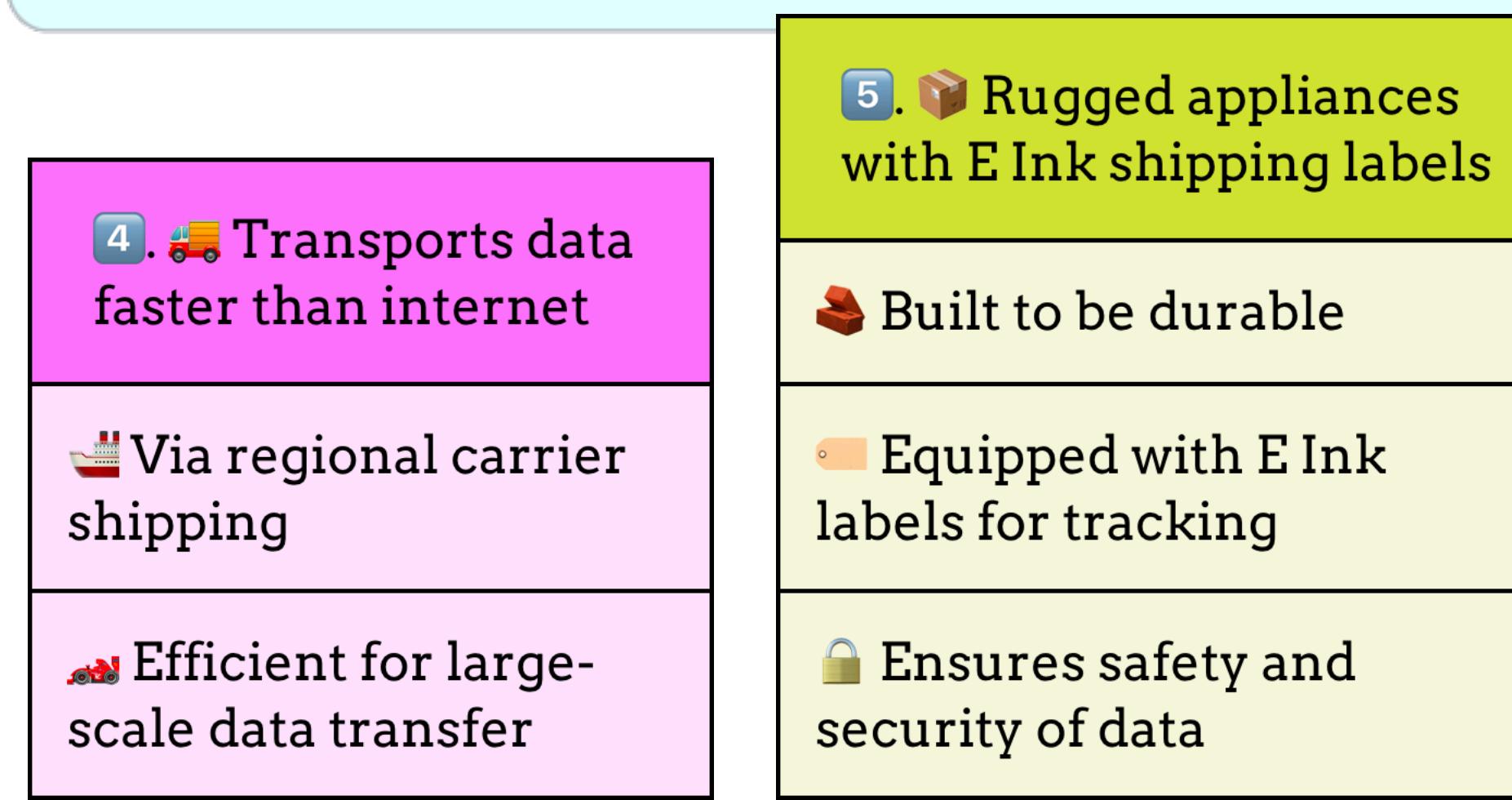
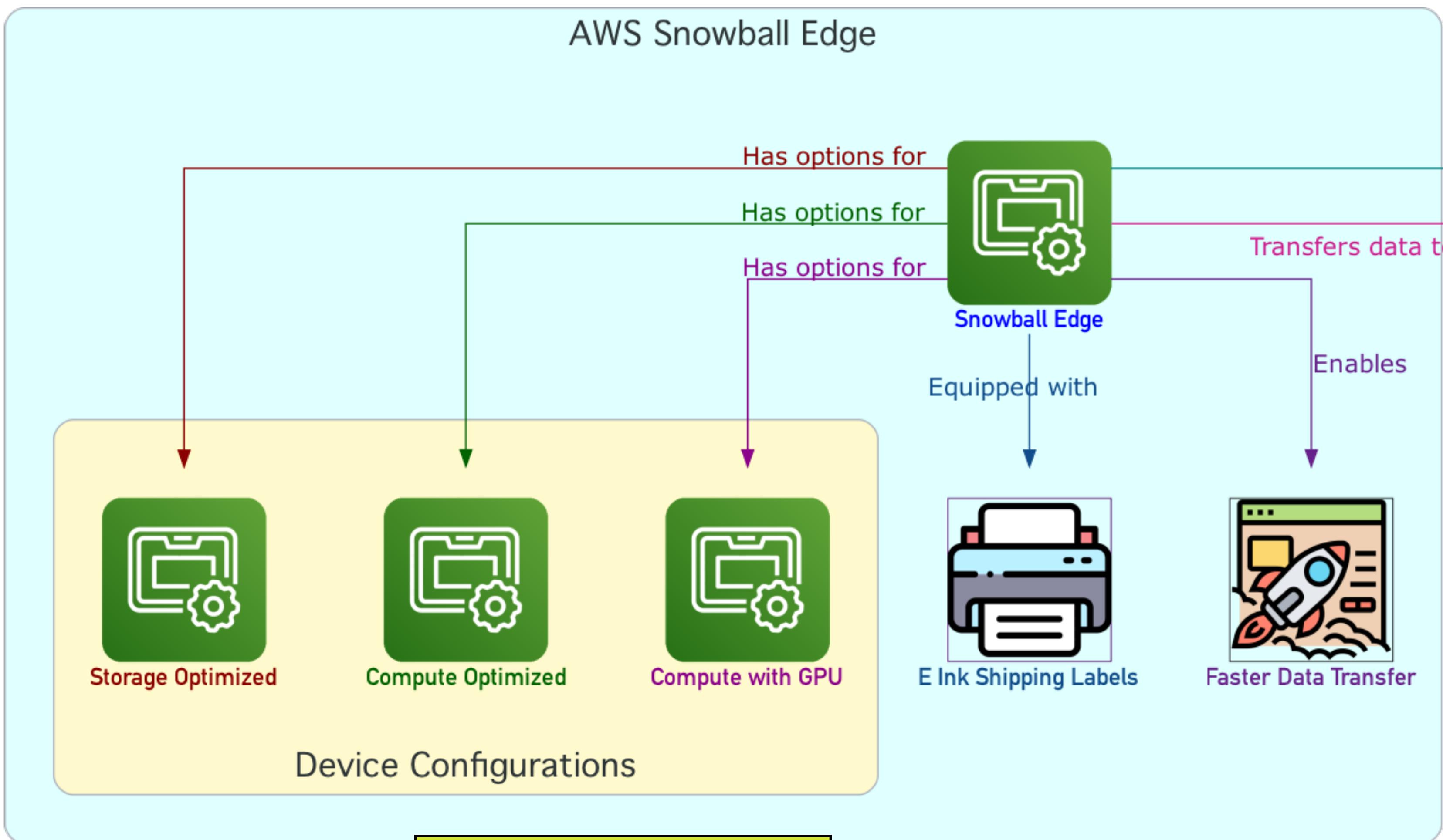


Snowball Edge

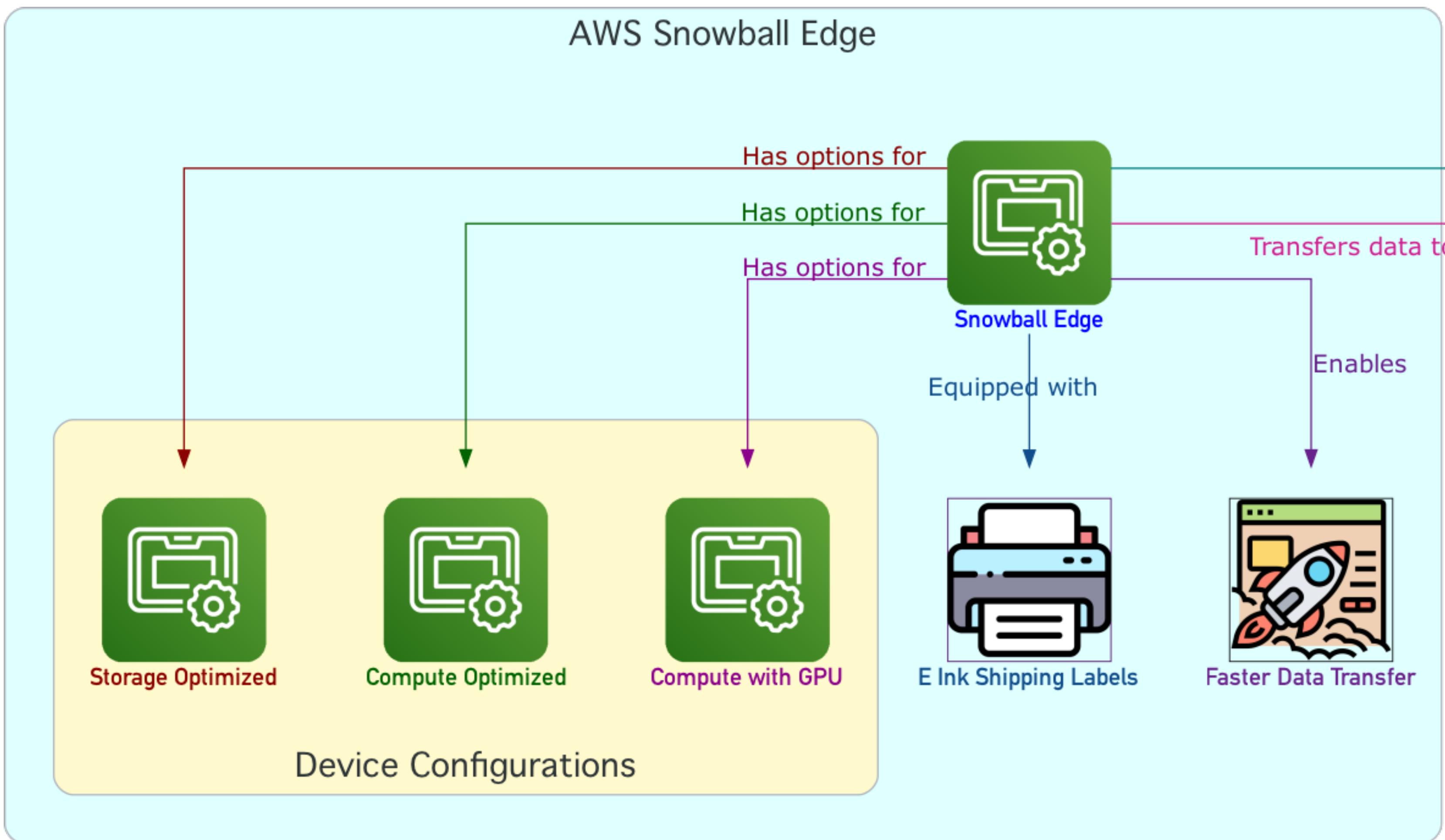
# Snowball Edge



# Snowball Edge



# Device Config



1. Storage Optimized for data-heavy tasks

Optimized for storage-intensive tasks

Ideal for large-scale data transfer

Perfect for data-heavy workloads

2. Compute Optimized for intensive processing

Designed for compute-heavy workloads

Requires higher processing power

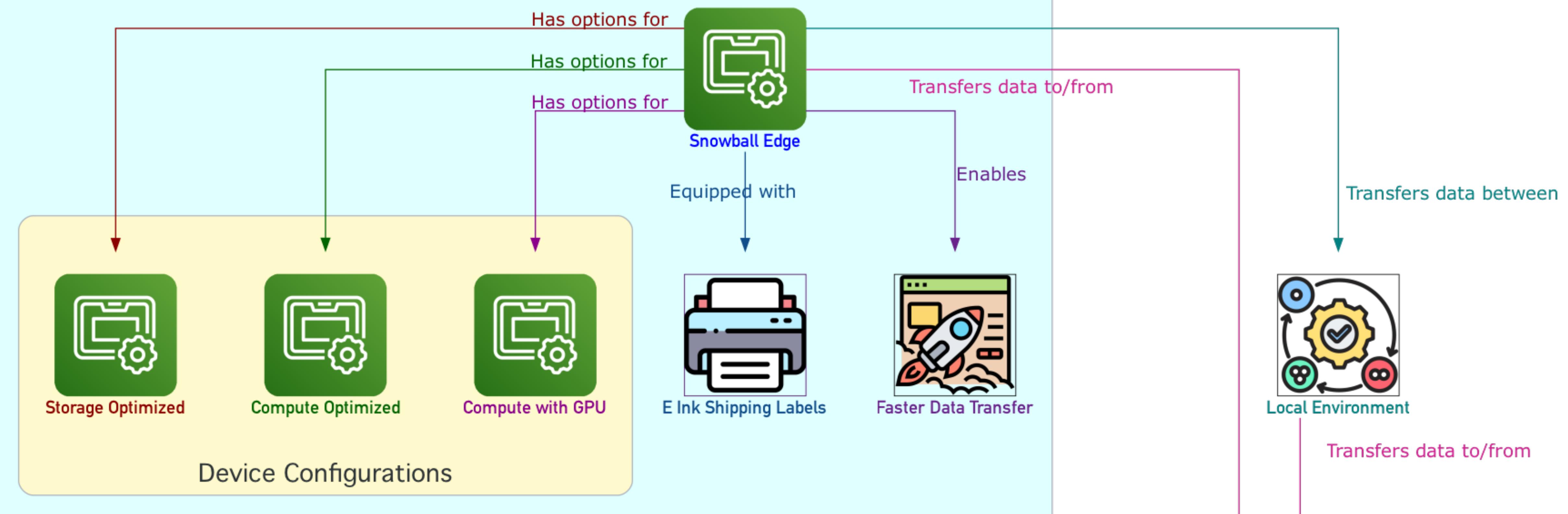
Enables more intensive data processing

Transfers data between (Local Environment, AWS Cloud)

AWS Cloud

# Device Config

AWS Snowball Edge



3. 🖥️💪 Compute Optimized with GPU for graphical processing

Includes an on-board GPU

⚡ Accelerated computing capabilities

⭐ Perfect for graphics-intensive tasks

🖼️ Ideal for high graphical processing power

4. 🔎 Specific features and capabilities for each configuration

🌐 Includes all three configuration options

⌚ Specific information applies to one or more configurations

🌟 Highlights unique capabilities of each configuration

AWS Cloud

AWS Cloud

# AWS Snowball Edge features

1. Storage capacity and compute functionality options

Customizable based on job creation

2. High-speed network adapters

Up to 100 Gbit/second transfer speeds

3. Enforced encryption

Protects data at rest and in transit

4. Import/export data between local environments and Amazon S3

Physical transport without internet

5. Rugged, self-contained devices

Built-in E Ink display for shipping label

6. On-board LCD display

Manage network connections

Get service status information

7. Device clustering for storage and compute jobs

Data durability across 3 to 16 devices

Locally grow or shrink storage on demand

8. Amazon EKS Anywhere support

Run Kubernetes workloads

9. Amazon S3 and Amazon EC2 compatible endpoints

Enables programmatic use cases

10. Support for new instance types (sbe1, sbe-c, sbe-g)

Run compute instances using AMIs

11. Supported data transfer protocols

NFSv3, NFSv4, NFSv4.1

Amazon S3 over HTTP or HTTPS (via API)

# Snowball Edge Device Options

<b>Specification</b>	<b>Snowball Edge storage-optimized (for data transfer)</b>	<b>Snowball Edge storage-optimized 210 TB</b>	<b>Snowball Edge storage-optimized (with EC2 compute functionality)</b>	<b>Snowball Edge compute-optimized with AMD EPYC Gen2 and NVME</b>	<b>Snowball Edge compute-optimized with AMD EPYC Gen1, HDD, and optional GPU</b>
CPU	AMD Naples, 32 cores, 3.4Ghz	AMD Rome, 64 cores, 2 GHz	AMD Naples, 32 cores, 3.4Ghz	AMD Rome, 64 cores, 2 GHz	AMD Naples, 32 cores, 3.4Ghz
vCPUs	40	104	40	104	52
Usable memory	80 GB	416 GB	80 GB	416 GB	208 GB
Security card	Yes	Yes	Yes	Yes	Yes
GPU (optional)	None	None	None	None	NVidia V100
SSD	1 TB SATA	210 TB NVMe	1 TB SATA	28 TB NVMe	7.68 TB NVMe
Usable HDD	80 TB	Not applicable	80 TB	Not applicable	39.5 TB usable
Network interfaces	<ul style="list-style-type: none"> <li>- 2x 10 Gbit – RJ45 (one usable)</li> <li>- 1x 25 Gbit – SFP28</li> <li>- 1x 100 Gbit – QSFP28</li> </ul>	<ul style="list-style-type: none"> <li>- 2x 10 Gbit – RJ45 (one usable)</li> <li>- 1x 25 Gbit – SFP28</li> <li>- 1x 100 Gbit – QSFP28</li> </ul>	<ul style="list-style-type: none"> <li>- 2x 10 Gbit – RJ45 (one usable)</li> <li>- 1x 25 Gbit – SFP28</li> <li>- 1x 100 Gbit – QSFP28</li> </ul>	<ul style="list-style-type: none"> <li>- 2x 10 Gbit – RJ45 (one usable)</li> <li>- 1x 25 Gbit – SFP28</li> <li>- 1x 100 Gbit – QSFP28</li> </ul>	<ul style="list-style-type: none"> <li>- 2x 10 Gbit – RJ45 (one usable)</li> <li>- 1x 25 Gbit – SFP28</li> <li>- 1x 100 Gbit – QSFP28</li> </ul>

# Snowball Edge Storage Optimized (for Data Transfer) specifications

Item	Snowball Edge Storage Optimized (for Data Transfer) Specifications
<b>Storage specifications</b>	
HDD storage capacity	80 TB of usable
<b>Power supply specifications</b>	
Power	In AWS Regions in the US: NEMA 5–15p 100–220 volts. In all AWS Regions, a power cable is included
Power consumption	304 watts for an average use case, though the power supply is rated for 1200 watts.
Voltage	100 – 240V AC
Frequency	47/63 Hz
<b>Data and network connections</b>	
Network interfaces	2x 10 Gbit – RJ45 (one usable)
	1x 25 Gbit – SFP28
	1x 100 Gbit – QSFP28
Cables	Each AWS Snowball Edge device ships country-specific power cables. No other cables or optics are provided. For more information, see <a href="#">Supported network hardware</a> .
<b>Thermal requirements</b>	AWS Snowball Edge devices are designed for office operations and are ideal for data center operations.
<b>Decibel output</b>	On average, an AWS Snowball Edge device produces 68 decibels of sound, typically quieter than a vacuum cleaner or living-room music.

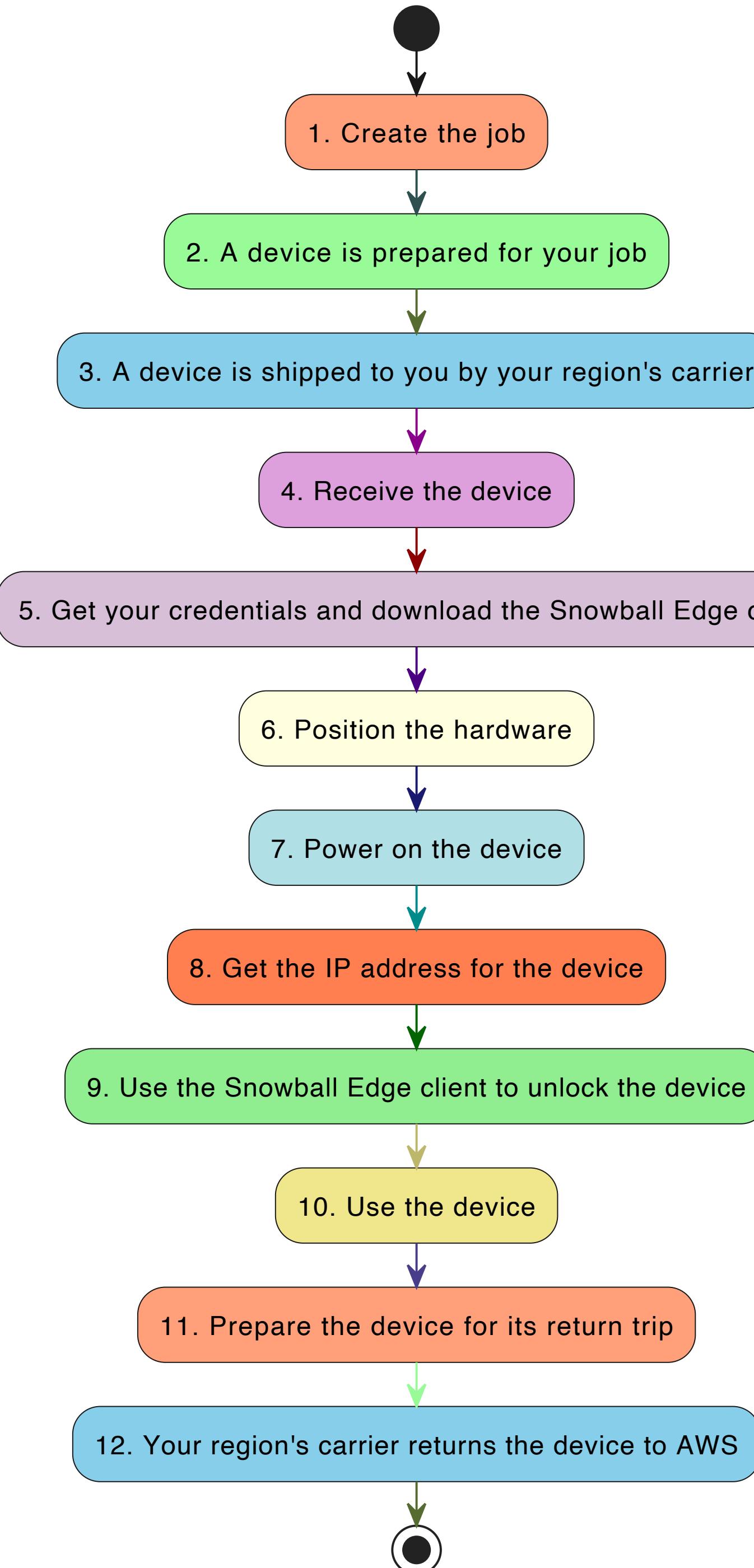
# Snowball Edge Storage Optimized (for Data Transfer) specifications

Item	Snowball Edge Storage Optimized (for Data Transfer) Specifications
Dimensions and weight specifications	
Weight	49.7 pounds (22.54 Kg)
Height	15.5 inches (394 mm)
Width	10.6 inches (265 mm)
Length	28.3 inches (718 mm)
Environment specifications	
Vibration	Non-operational use equivalent to ASTM D4169 Truck level I 0.73 GRMS
Shock	Operational use equivalent to 70G (MIL-S-901)
	Non-operational use equivalent to 50G (ISTA-3A)
Altitude	Operational use equivalent to 0–3,000 meters (0–10,000 feet)
	Non-operational use equivalent to 0–12,000 meters
Temperature range	0–45°C (operational)

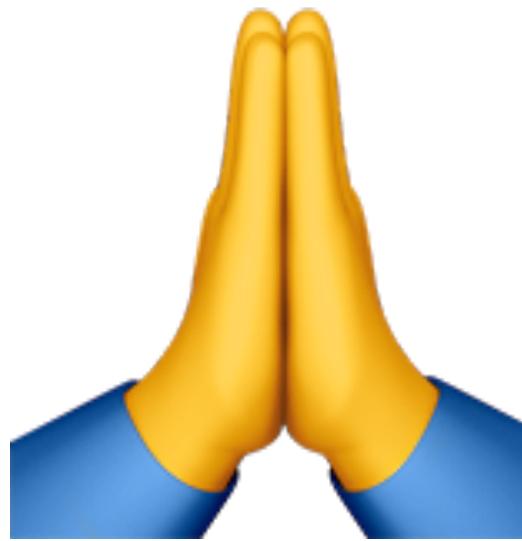
# Device Use Cases

Use case	Snowball Edge	AWS Snowcone
Import data into Amazon S3	✓	✓
Export from Amazon S3	✓	
Durable local storage	✓	
Local compute with AWS Lambda	✓	✓
Local compute instances	✓	✓
Durable Amazon S3 storage in a cluster of devices	✓	
Use with AWS IoT Greengrass (IoT)	✓	✓
Transfer files through NFS with a GUI	✓	✓
GPU workloads	✓	

# Usage Workflow



1. **Create the job:** AWS Snow Family Management Console, Job management API, Job status tracking
2. **Device preparation:** AWS prepares Snowball Edge device, Job status: Preparing Snowball
3. **Device shipped by carrier:** Carrier takes over, Job status: In transit to you, Tracking number and website
4. **Receive the device:** Delivered in a few days, Delivered to provided address, Device is its own shipping container
5. **Get credentials and download client:** Get credentials, Get job manifest and unlock code, Download Snowball Edge client
6. **Position the hardware:** Move device to data center, Connect to power and local network
7. **Power on the device:** Press power button above LCD, Wait for Ready screen
8. **Get device IP address:** LCD display has CONNECTION tab, Tap tab to get IP address
9. **Unlock device with client:** Enter device IP, manifest path, unlock code, Client decrypts manifest, authenticates access
10. **Use the device:** Transfer data with Amazon S3 adapter or NFS, Local compute and storage with S3 compatible storage
11. **Prepare device for return:** Press power button to turn off, Unplug device and cables, Close all device doors
12. **Carrier returns device to AWS:** Job status: In transit to AWS



**Thanks  
for  
Watching**