



HPDM & Amazon EC2 Deployment Guide

HP Device Manager 4.7 SP3

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Overview

HP Device Manager (HPDM) is a device management tool capable of working in many different complicated environments. You can configure your firewall to enable deployment of HPDM in a cloud, and then use HPDM in the cloud to manage HP devices. This document covers deploying HPDM in Amazon Elastic Compute Cloud (EC2).

Note

Make sure that your Amazon account has the necessary privileges, and that you have created your Amazon EC2 instance before deploying HPDM. For more information on creating an Amazon account, see Amazon documentation.

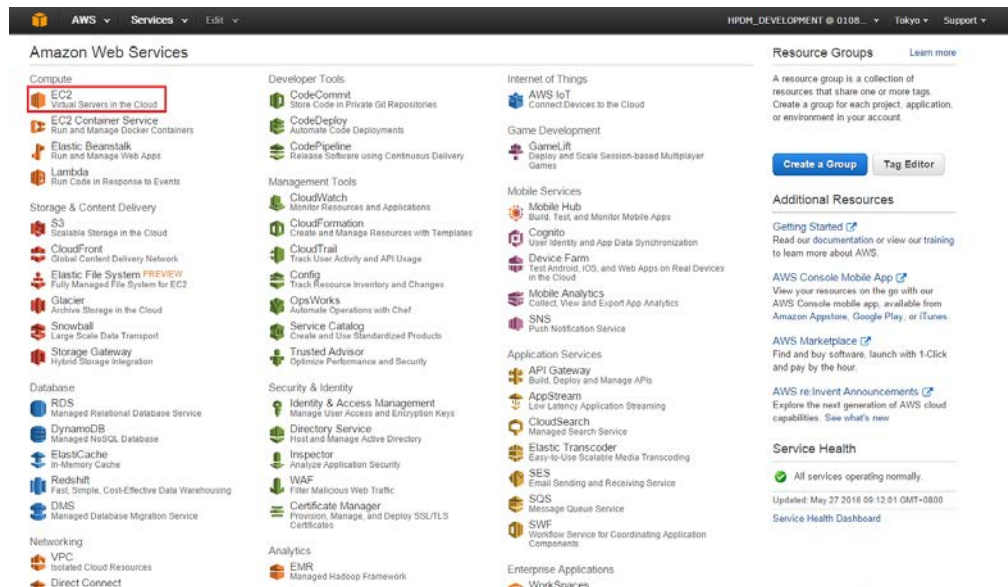
Deploying HPDM on Amazon EC2

To deploy HPDM in Amazon EC2 and manage HP devices:

1. Create an Amazon EC2 instance. See Amazon documentation. See [Creating an Amazon EC2 instance](#).
2. Install HPDM. See [Installing HPDM and HPDM Embedded HTTPS Server](#).
3. Configure the security groups. See [Configuring the security groups](#).
4. Launch the Amazon EC2 instance.

Creating an Amazon EC2 instance

1. Go to <http://aws.amazon.com/> and log on to your Amazon account.
2. On the Amazon Web Services page, select **EC2**.



3. In the EC2 Dashboard, select **Launch Instance**.

The screenshot shows the AWS Management Console EC2 Dashboard. The top navigation bar includes the AWS logo, 'Services', 'Edit', and user information 'HPDM_DEVELOPMENT @ 0108... Tokyo Support'. The left sidebar lists navigation options: EC2 Dashboard, Events, Tags, Reports, Limits, INSTANCES (Instances, Spot Requests, Reserved Instances, Dedicated Hosts), IMAGES (AMIs, Bundle Tasks), ELASTIC BLOCK STORE (Volumes, Snapshots), NETWORK & SECURITY (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces), LOAD BALANCING (Load Balancers), and AUTO SCALING.

The main content area is divided into three sections: Resources, Create Instance, and Service Health. The Resources section shows a summary of EC2 resources in the Asia Pacific (Tokyo) region: 0 Running Instances, 0 Elastic IPs, 0 Dedicated Hosts, 0 Snapshots, 0 Volumes, 0 Load Balancers, 1 Key Pairs, 2 Security Groups, and 0 Placement Groups. The Create Instance section has a 'Launch Instance' button highlighted with a red box. Below it, a note states: 'Note: Your instances will launch in the Asia Pacific (Tokyo) region'. The Service Health section shows the status of the Asia Pacific (Tokyo) region, indicating that the service is operating normally.

The right sidebar contains 'Account Attributes' (Supported Platforms, VPC, Default VPC, vpc-5f40d23a, Resource ID length management) and 'Additional Information' (Getting Started Guide, Documentation, All EC2 Resources, Forums, Pricing, Contact Us). Below this is the 'AWS Marketplace' section, which promotes free software trial products and lists popular AMIs like Tableau Server.

4. Choose an available Amazon Machine Image (AMI), and then click **Select**.

The screenshot shows the 'Step 1: Choose an Amazon Machine Image (AMI)' page in the AWS Management Console. The top navigation bar is the same as the previous screenshot. The left sidebar is also the same. The main content area shows a list of AMIs. The first AMI, 'Microsoft Windows Server 2012 Base - ami-7f799e1e', is highlighted with a red box around its 'Select' button. The list includes the following AMIs:

- Microsoft Windows Server 2012 Base - ami-7f799e1e (64-bit)
- Microsoft Windows Server 2012 with SQL Server Express - ami-7d799e1c (64-bit)
- Microsoft Windows Server 2012 with SQL Server Web - ami-6c47a00d (64-bit)
- Microsoft Windows Server 2012 with SQL Server Standard - ami-eb7a9d8a (64-bit)
- Microsoft Windows Server 2008 R2 Base - ami-857e99e4 (64-bit)

The right sidebar shows 'Cancel and Exit' and 'Feedback' links. The bottom of the page includes the same navigation bar and footer as the previous screenshot.

5. Choose an instance type, and then select **Review and Launch**.

Note

Before completing step 6, configure the security groups. See [Configuring the security groups](#).

AWS

Services

Edit

HPDM_DEVELOPMENT @ 0108...TokyoSupport

1. Choose AMI2. Choose Instance Type3. Configure Instance4. Add Storage5. Tag Instance6. Configure Security Group7. Review

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: All instance typesCurrent generationShow/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

	Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
<input type="checkbox"/>	General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate
<input checked="" type="checkbox"/>	General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.small	1	2	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.medium	2	4	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	t2.large	2	8	EBS only	-	Low to Moderate
<input type="checkbox"/>	General purpose	m4.large	2	8	EBS only	Yes	Moderate
<input type="checkbox"/>	General purpose	m4.xlarge	4	16	EBS only	Yes	High
<input type="checkbox"/>	General purpose	m4.2xlarge	8	32	EBS only	Yes	High

Cancel

Previous

Review and Launch

Next: Configure Instance Details

FeedbackEnglish

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- After you configure the security groups, select **Launch**.

Step 7: Review Instance Launch
Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

Improve your instances' security. Your security group, launch-wizard-2, is open to the world.
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.
You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. [Edit security groups](#)

AMI Details [Edit AMI](#)
 Microsoft Windows Server 2012 Base - ami-7f799e1e
Free tier eligible
Microsoft Windows 2012 Standard edition with 64-bit architecture. [English]
Root Device Type: ebs Virtualization type: hvm

Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	Variable	1	1	EBS only	-	Low to Moderate

Security Groups [Edit security groups](#)

Security group name	Description
launch-wizard-2	launch-wizard-2 created 2016-05-26T08:26:16.756+08:00

[Cancel](#) [Previous](#) [Launch](#)

After the instance is created, you can launch it with your Amazon account. Then you can install HPDM in it.

Installing HPDM and HPDM Embedded HTTPS Server

- In the EC2 Dashboard, select **Running Instances**.

EC2 Dashboard
Events
Tags
Reports
Limits

INSTANCES
Instances
Spot Requests
Reserved Instances
Dedicated Hosts

IMAGES
AMIs
Bundle Tasks

ELASTIC BLOCK STORE
Volumes
Snapshots

NETWORK & SECURITY
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces

LOAD BALANCING

Resources
You are using the following Amazon EC2 resources in the Asia Pacific (Tokyo) region:
1 Running Instances
0 Elastic IPs
0 Dedicated Hosts
1 Volumes
1 Key Pairs
0 Placement Groups
0 Snapshots
0 Load Balancers
3 Security Groups

Build and run distributed, fault-tolerant applications in the cloud with Amazon Simple Workflow Service. [×](#)

Create Instance
To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.
[Launch Instance](#)
Note: Your instances will launch in the Asia Pacific (Tokyo) region

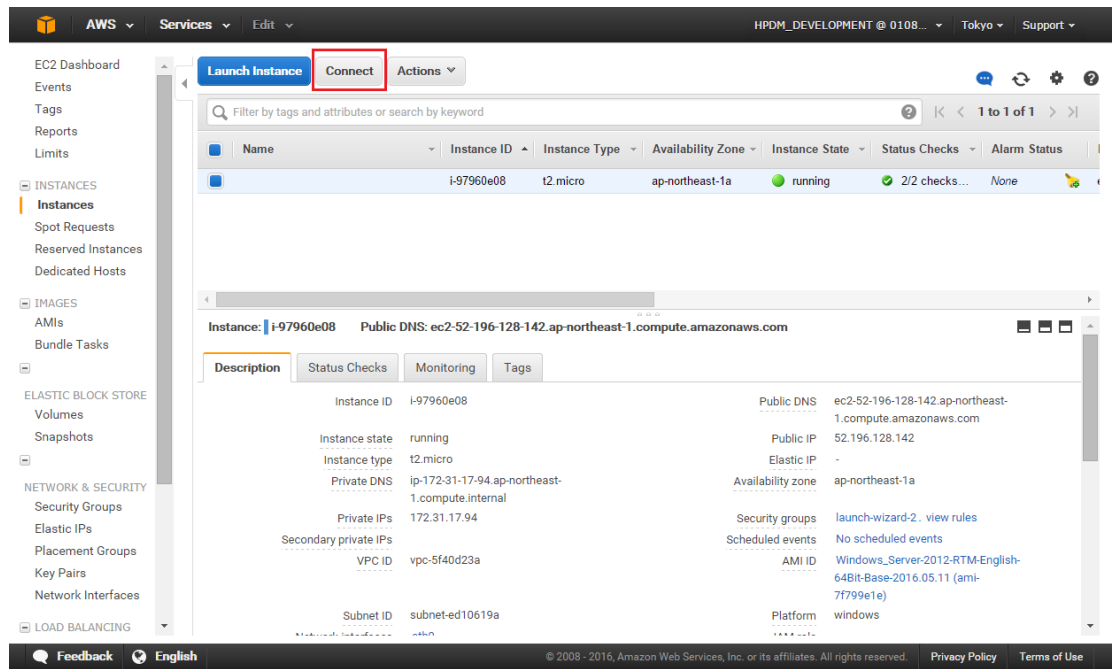
Service Health
Service Status:
Asia Pacific (Tokyo):
This service is operating normally
Availability Zone Status:
ap-northeast-1a:
Availability zone is operating normally

Scheduled Events
Asia Pacific (Tokyo):
No events

Account Attributes
Supported Platforms
VPC
Default VPC
vpc-5f40d23a
Resource ID length management
Additional Information
Getting Started Guide
Documentation
All EC2 Resources
Forums
Pricing
Contact Us

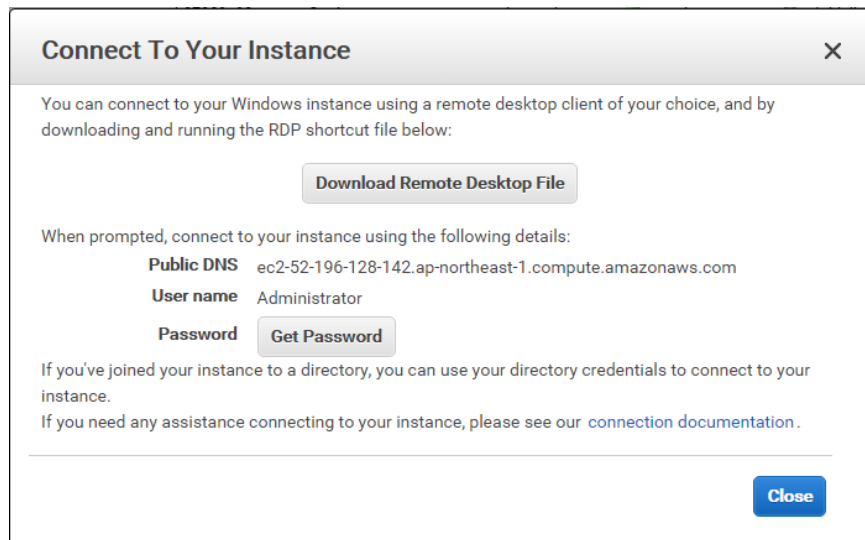
AWS Marketplace
Find **free software trial** products in the AWS Marketplace from the **EC2 Launch Wizard**.
Or try these popular AMIs:
Tableau Server (10 users)
Provided by Tableau
Rating ★★★★★
Pay by the hour for Tableau software and AWS usage

2. Select **Connect**.



3. Select **Download Remote Desktop File** and save it to your local system.

4. Select **Get Password**.



5. Use this password and file to connect to your instance.

6. Upload the HPDM package to the instance, and then install it. For instructions on installing HPDM, see the HP Device Manager 4.7 white paper *Installation and Update*.

7. Optionally, upload the HPDM Embedded HTTPS Server package to the virtual machine and install it. For instructions on installing HTTPS server, see the HP Device Manager 4.7 white paper *HPDM Embedded HTTPS Server Deployment Guide*.

Configuring the security groups

By default, an Amazon EC2 instance opens only the RDP connection through port 3389. You must map the ports corresponding to HPDM to manage your device over the Internet.

To add a port to your firewall:

1. Select the instance where HPDM was installed, and then select the **Security Groups** column value.

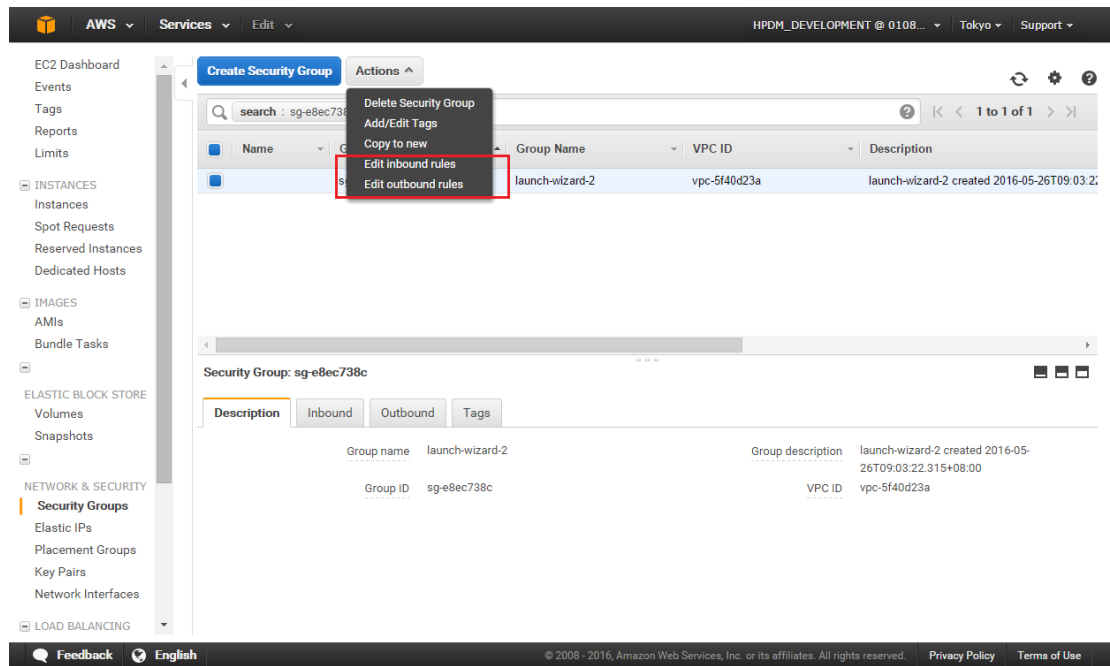
The screenshot shows the AWS Management Console interface. On the left, the navigation pane is visible with categories like INSTANCES, IMAGES, ELASTIC BLOCK STORE, and NETWORK & SECURITY. The 'INSTANCES' section is expanded, and the 'Instances' list is shown. A table of instances is displayed with columns: Public DNS, Public IP, Key Name, Monitoring, Launch Time, and Security Groups. The instance 'i-97960e08' is selected, and its details are shown in the main pane. The 'Security Groups' column for this instance is highlighted with a red box, showing the value 'launch-wizard-2'.

Public DNS	Public IP	Key Name	Monitoring	Launch Time	Security Groups
ec2-52-196-128-142.ap-northeast-1.compute.amazonaws.com	52.196.128.142	jasons	disabled	May 26, 2016 at 9:12:39 AM UTC+8	launch-wizard-2

Instance: **i-97960e08** Public DNS: **ec2-52-196-128-142.ap-northeast-1.compute.amazonaws.com**

Description		Status Checks	Monitoring	Tags
Instance ID	i-97960e08	Public DNS	ec2-52-196-128-142.ap-northeast-1.compute.amazonaws.com	
Instance state	running	Public IP	52.196.128.142	
Instance type	t2.micro	Elastic IP	-	
Private DNS	ip-172-31-17-94.ap-northeast-1.compute.internal	Availability zone	ap-northeast-1a	
Private IPs	172.31.17.94	Security groups	launch-wizard-2, view rules	
Secondary private IPs		Scheduled events	No scheduled events	
VPC ID	vpc-5f40d23a	AMI ID	Windows_Server-2012-RTM-English-64Bit-Base-2016.05.11 (ami-7f799e1e)	
Subnet ID	subnet-ed10619a	Platform	windows	

2. Select **Actions** to configure this security group as necessary.



- **Edit inbound rules**—Specifies which ports of the Amazon EC2 instance can be accessed and by which machines.

Edit inbound rules

Type

Protocol

Port Range

Source

RDP

TCP

3389

Anywhere

0.0.0.0/0

Add Rule

Cancel

Save

- **Edit outbound rule**—Specifies which ports on the selected machines can be accessed by the Amazon EC2 instance. By default, **All traffic** is selected.

Edit outbound rules

Type

Protocol

Port Range

Destination

All traffic

All

0 - 65535

Anywhere

0.0.0.0/0

Add Rule

Cancel

Save

Repeat this procedure for every port used by HPDM in your production environment. For more information about which ports HPDM uses, see the Port reference section in the *Administrator Guide* for HP Device Manager 4.7.

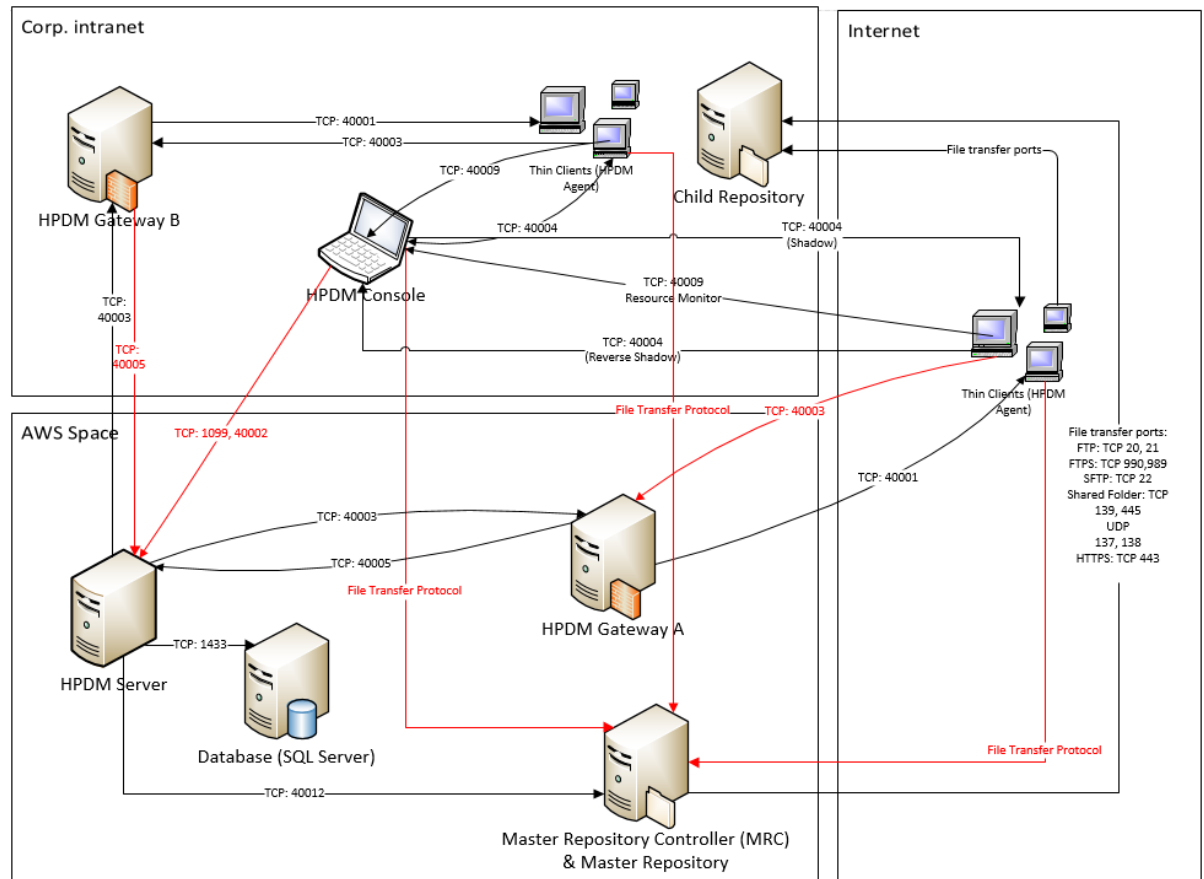
Sample scenario

Production environments are complex, diversified, and flexible. Use the following example to better understand port configuration in the cloud. This is a typical model with detailed configurations for reference.

Note

There might be firewalls between the Internet or Intranet and Amazon EC2. Make sure that you have completed the procedure in [Configuring the security groups](#) to allow communication between your devices and the cloud.

Figure 1. Typical topography



All ports in red in Figure 1 must be added to the endpoint firewall.

Table 1. Enpoints rule in Amazon EC2

Name	Protocol	Public port	Private port
HPDM Gateway B to HPDM Server	TCP	40005	40005
HPDM Console to HPDM Server	TCP	1099	1099
HPDM Console to HPDM Server	TCP	40002	40002
HPDM Agent to Master Repository Controller	TCP/UDP	File Transfer Port	File Transfer Port
HPDM Console to Master Repository Controller	TCP/UDP	File Transfer Port	File Transfer Port
HPDM Agent to HPDM Gateway A	TCP	40003	40003

For more information

To read more about HP Device Manager, go to hp.com/go/hpdm.

Sign up for updates

hp.com/go/getupdated

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