

Creating an AWS IAM Role to connect AWS with Ubidots

This is a complement to "<u>Connect AWS IoT with Ubidots</u>". If you haven't read it, make sure to check it out before continuing.

This guide explains an alternative method to grant Ubidots access to your AWS account.

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1- Create an AWS IAM Role

Go to your <u>AWS IAM User Management</u> console, then click on "Roles" \rightarrow "Create Role":

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Roles			No results		
Policies					
Identity providers					
Account settings					
Credential report					
Encryption keys					
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Select the type of trusted entity "**Another AWS Account**", then enter Ubidots AWS account ID and continue to the next step.

Account ID: 813028286946



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	Create role Select type of trusted entity AWS service EC2, Lambda and others Author AWS account Belonging to you or 3rd party	1 2 3 r Web identity Cognito or any OpenID provider SAML 2.0 federation Your corporate directory	~
	Allows entities in other accounts to perform actions in this account. Learr Specify accounts that can use this role	i more	
	Account ID* 813028286946 Options Require external Require MFA	ID (Best practice when a third party will assume this role)	
Feedback	* Required Senglish (US)	Cancel Next: Permissions © 2008 - 2018, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy	Terms of Use

Leave the screen to "Attach permission policies" untouched and click on "Next: Review" (We'll be adding those permissions later):

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	Create role - Attach permissions policies		1 2 3	Ì
	Choose one or more policies to attach to your new role.		0	
	Filter policies ~ Q Search		Showing 398 results	
	Policy name 👻	Used as	Description	
	AdministratorAccess	None	Provides full access to AWS services a	
	AlexaForBusinessDeviceSetup	None	Provide device setup access to AlexaF	
	AlexaForBusinessFullAccess	None	Grants full access to AlexaForBusiness	
	AlexaForBusinessGatewayExecution	None	Provide gateway execution access to A	
	AlexaForBusinessReadOnlyAccess	None	Provide read only access to AlexaForBu	
	AmazonAPIGatewayAdministrator	None	Provides full access to create/edit/dele	
	AmazonAPIGatewayInvokeFullAccess	None	Provides full access to invoke APIs in A	
	AmazonAPIGatewayPushToCloudWatchLogs	None	Allows API Gateway to push logs to use	
	 Set permissions boundary 			
	* Required		Cancel Previous Next: Review	,
Feedback	English (US)	© 2008 - 2018, An	azon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Term	ns of Use

Finally, in the **Role name**, enter a name that begins with "**Ubidots_**".

Mandatory prefix for Role name: "Ubidots_"



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	Create role	
	Review	
	Provide the required information below and review	r this role before you create it.
	Role name*	Ubidots_813028286946
		Use alphanumeric and '+=, @' characters. Maximum 64 characters.
	Role description	
		Maximum 1000 characters. Use alphanumeric and '+=, @' characters.
	Trusted entities	The account 813028286946
	Dellisio	Delision and attacked
	Policies	Policies not attached
	Permissions boundary	Permissions boundary is not set
	* Required	Cancel Previous Create role
Feedback	S English (US)	© 2008 - 2018, Amszon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use

2- Edit IAM Role's Trust Relationship and Permissions Click on the created Role to edit it:



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Users Roles Policies Identity providers Libidots. 813028286946 Account: 813028286946 Encryption keys	C 🗘 0
Note Policies Identity providers Ubidots.813028286946 Account: 813028286946 Account: 813028286946 Encryption keys	Showing 1 result
Identity providers Ubidots 813028286946 Account settings Credential report	
Account settings Credential report Encryption keys	
Credential report Encryption keys	
Encryption keys	

Go to the tab "Trust relationship", then click on "Edit trust relationship":

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Search IAM Roles > Ubidots_813028286946 Delete role Dashboard Groups Role ARN arn:aws:iam::561232861499:role/Ubidots_813028286946 Delete role Bashboard Role ARN arn:aws:iam::561232861499:role/Ubidots_813028286946 Delete role Bashboard Role ARN Edit Bashboard Instance Profile ARNs Ca Policies Instance Profile ARNs Ca Identity providers Account settings Creation time 2018-07-26 11:22 EST Maximum CLI/API session duration 1 hour Edit https://signin.aws.amazon.com/swifchrole?roleName=Ubidots_813028286946&account=561232861499	aws _{Ser}	rices 🗸 Resource Groups 🗸 🛠		🗘 🛛 Gustavo Díaz Jaimes	🔹 Global 👻 Support 🕶
Dashboard Role ARN armawstiam::561232861499:role/Ubidots_813028286946 @] Groups Role description Edit Users Instance Profile ARNs @] Policies Path / Policies Creation time 2018-07-26 11:22 EST Identity providers Maximum CLI/API session duration 1 hour Edit Account settings Give this link to users who can switch roles in the console thps://signin.aws.amazon.com/switchrole?roleName=Ubidots_813028286946&account=561232861499 @]	Search IAM	Roles > Ubidots_813028286946 Summary			Delete role
	Dashboard Groups Users Roles Policies Identity providers Account settings Credential report	Role ARN arr Role description Ed Instance Profile ARNs d2 Path / Creation time 20 Maximum CLI/API session duration 1 P Give this link to users who can htt switch roles in the console	naws:lam::561232861499:role/Ubidot it 5 18-07-26 11:22 EST hour Edit ps://signin.aws.amazon.com/switchr	ts_813028286946 <i>දි</i> පු ole?roleName=Ubidots_813028286946&accou	nt=561232861499 <i>全</i> 到
Encryption keys Permissions Trust relationships Access Advisor Revoke sessions You can view the trusted entities that can assume the role and the access conditions for the role. Show policy document Edit trust relationship Trusted entities Trusted entities can assume this role. The following conditions define how and when trusted entities can assume the	Encryption keys	Permissions Trust relationships Ac You can view the trusted entities that can ass Edit trust relationship Edit trust relationship Trusted entities Trusted entities The following trusted entities can assume thi	cess Advisor Revoke sessions sume the role and the access conditions is role.	ns for the role. Show policy document Conditions The following conditions define how and wher	n trusted entities can assume the
Trusted entities There are no conditions associated with this role. The account 813028286946 There are no conditions associated with this role.		Trusted entities The account 813028286946		role. There are no conditions associated with this re	ole.
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Copy and paste the following trust policy, then click on "Update Trust Policy":



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Edit Trust Relationship	Edit Trust Relationships You can customize trust relationships by editing the following access control police Policy Document	y document.	
		Cancel	Update Trust Policy

Go to the "Permissions" tab, then click on "Add inline policy":



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Search IAM	Roles > Ubidots_813028286946 Summary						Delete ro
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Encryption keys	Permissions Trust relationsh Permissions policies Get started with p This role doesn't have Attach policies	ps Access Advisor ermissions any permissions yet. Get	Revoke sessions	e or more policies to this	: role. Learn more	O Add inlin	e policy
	Permissions boundary	not set)					

Copy and paste the following policy into the "JSON" tab, then click on "Review policy":

```
{
    "Version": "2012-10-17",
    "Statement": {
    "Effect":
    "Allow",
    "Action": [
        "iam:GetRole",
        "iam:CreateRole",
        "iam:PutRolePolicy",
        "iam:ListRolePolicies"
        ],
    "Resource":
    "arn:aws:iam::*:role/Ubidots_813028286946
    }
}
```







Give a name to your policy, then click on "Create Policy". Please note the name must be "ubidots_iam":



Mandatory inline policy name: "ubidots_iam"

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aws Services -	Resource Groups v	am/nome/region=us-east-2#/roles/Ubidot	S_813028286946\$CreatePolicy/sec	z Jaimes 👻 Global 👻 Support 🖲
Create polic	су			1 2
Review policy Before you create this	policy, provide the required info	rmation and review this policy.		
Name	* ubidots_iam	alabanumaria and '4" @ ' charactere		
Summar	This policy defines son action that has an app	me actions, resources, or conditions that do not p licable resource or condition. For details, choose	provide permissions. To grant access, po Show remaining. Learn more	plicies must have an
	Q Filter			
	Service 👻	Access level	Resource	Request condition
	Allow (1 of 142 services) Show remaining 141		
	IAM	Limited: List, Read, Write, Permissions management	RoleName string like Ubidots_*	None
	4			,
Required			Cane	al Pravious Craste policy
92420 CANDUNIS			Canc	create policy

You should see the inline policy "ubidots_iam" successfully created:

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ncryption keys	 Permissions policies (* Attach policies 	I policy applied)			• Add inline policy
	Policy name 👻			Policy type 👻	
	▶ ubidots_iam			Inline policy	я
	 Permissions boundary 	(not set)			



Repeat the same process to create another "Inline policy". This time, copy and paste the following policy into the "JSON" tab, then click on "**Review policy**":



Give a name to your policy, then click on "**Create Policy**". Please note the name in this case must be "**aws_iot_core_read_policy**":

Mandatory inline policy name: "aws_iot_core_read_policy"

You've now successfully configured your IAM Role. Finally, copy the IAM Role URL:



Search IAM	Roles > Ubidots_xxxx Summary				Delete ro
Dashboard Groups Users Roles Policies Identity providens Account settings Credential report	Role ARN Role description Instance Profile ARNs Path Creation time Maximum CLU/API session duration Give this link to users who	amcawsciam::114364700 Edit 201 2018-09-06 10:50 EST 1 hour Edit	3195.roie/Ubidots_xxxx (2)		4
Encryption keys	can switch roles in the console			1018_000xA80000urt=11436470311	6 6
Encryption keys	can switch roles in the console Permissions Trust relations	Nips Access Advisor	Revoke sessions	018_XXXXXAB000Untr=1143047031	
Encryption keys	can switch roles in the console Permissions Trust relations • Permissions policies (2 Attach policies Policy name •	nips Access Advisor policies applied)	Revoke sessions Policy type +		nline policy

3- Enter your IAM Role URL in Ubidots

In your Ubidots account, go to "Data" \rightarrow "Plugins", then click on "Create Data Plugin":

Ubidots	Device Management Users Apps Reports	0
Data Plugins		
		-
	Data Plugins	
	Extend the data sourcing capabilities of Ubstats	
		C



Select AWS IoT:

	New Data Plugin	×
AWS IoT		

Click on "Connect" to link your AWS account with Ubidots:

Conne	AWS IOT ct AWS with U	* bidots
< BACK Ingest data from your AWS IoT devices	s. To begin, please connect your	AWS account with Ubidots:
Amazon Web Service	5	Connect

An authorization screen will appear. Scroll down and select the option "Connect using IAM Roles":



aws
000
Allow Ubidots to access your AWS account
Please enter your AWS Access Keys. We recommend creating a new user in the AWS IAM console with "Programmatic Access" and the following permission policy:
 IAMFullAccess
AccessKeyld
SecretAccessKey
Connect using AWS Access Keys
As a security measure, Ubidots will NOT store your AWS keys; they are only used once to create a restricted role to securely access your AWS account resources. If you would rather not provide your AWS keys, please click below to learn how to create an IAM role yourself.

Enter your IAM Role URL then click on "Check Role":

aws
< Back
Follow this guide to create an IAM Role with the right permissions, then come back to this screen and enter the resulting IAM Role URL:
https://signin.aws.amazon.com/switchrole?roleName=Ubidots_xxxx&accour
Check Role



After a successful handshaking between Ubidots and AWS, the authorization screen will disappear and you'll be back to your Ubidots account, where the message **"Account connected successfully"** will appear, along with the AWS Account you just connected to Ubidots. At this point, you're ready to <u>continue creating your AWS Data Plugin</u>.

AWS IOT Connect AWS with Ubidots								
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Ingest data fro	om your AWS loT	devices. To begi	n, please conne	ect your AWS account	with Ubidots:			
aws	AWS Account	ID: 1143647031	95		Select			
Account conn	ected successful	ly.						
1 Con	nect AWS with	Create	AWS	Check your Data F	Plugin			