

Cloud Automation



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Automate It?



Well defined



Repetitive



Cumbersome



Time Consuming



Frequent

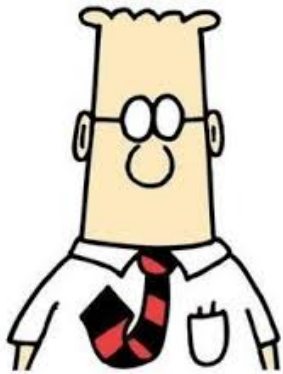


Error Prone

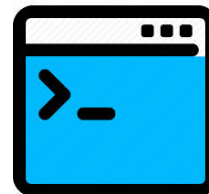
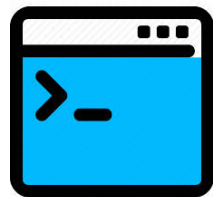


SMTP enable

SN@P



MrTicket



In the Cloud

SN@P



Active Directory



Lambda & CloudWatch



 AWS CLI



S3



AWS Lambda

Function code [Info](#)

Code entry type

Upload a .ZIP file

Runtime

Python 3.6

Handler [Info](#)

main.lambda

Function package*

Upload

For files larger than 10 MB, consider uploading via S3.



Environment variables

You can define Environment Variables as key-value pairs that are accessible from your function code. These are useful to store configuration settings without the need to change function code. [Learn more.](#)

BUCKET	smtp-enabled	Remove
LDAP_PWD		Remove
LDAP_SERVER	.princeton.edu	Remove
LDAP_USER		Remove
<i>Key</i>	<i>Value</i>	Remove

► Encryption configuration



AWS Lambda

ADVANTAGES

run code without servers

no provisioning - no patching

Self contained stable environment

part of lambda function definition

sub second metering

cheap – cheap - very very cheap





Cloud Watch

Cloud Watch Event

triggers execution 

Cloud Watch Logs

searchable dated execution traces

Execution Failures

trigger Alarm -> SNS Action -> Email

think  Nagios with more control

Monitoring Dash Boards

execution times and duration, failures, ...





Simple Storage Solution



S3://smtp-enabled



S3://smtp-enabled/2018/06/14/10:15-enabled-netids.tsv



S3://smtp-enabled/authoritative-enabled-netids.tsv

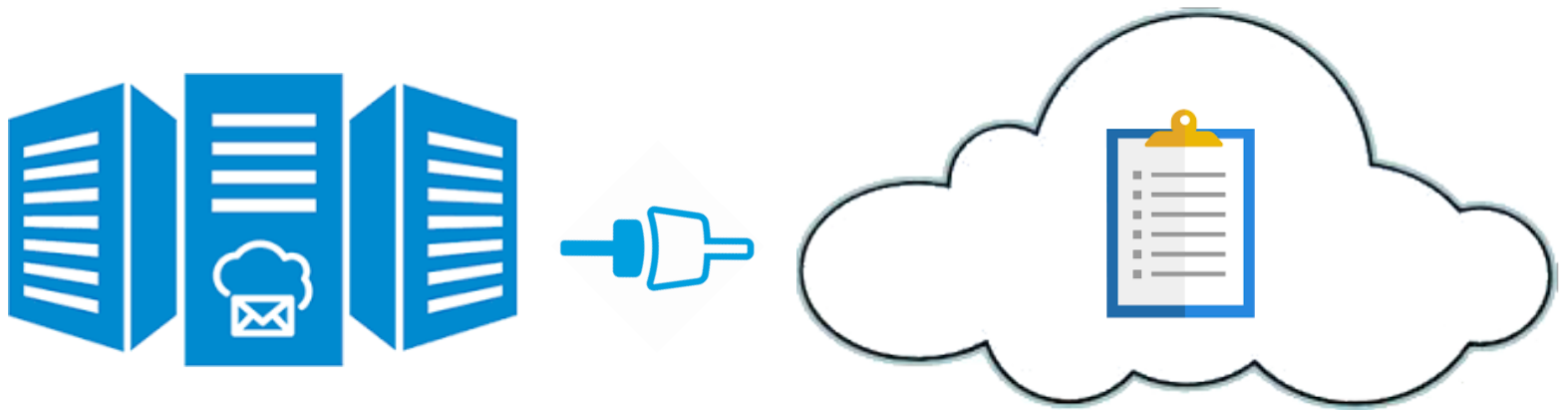


➤ `aws s3 sync s3://smtp-enabled .`

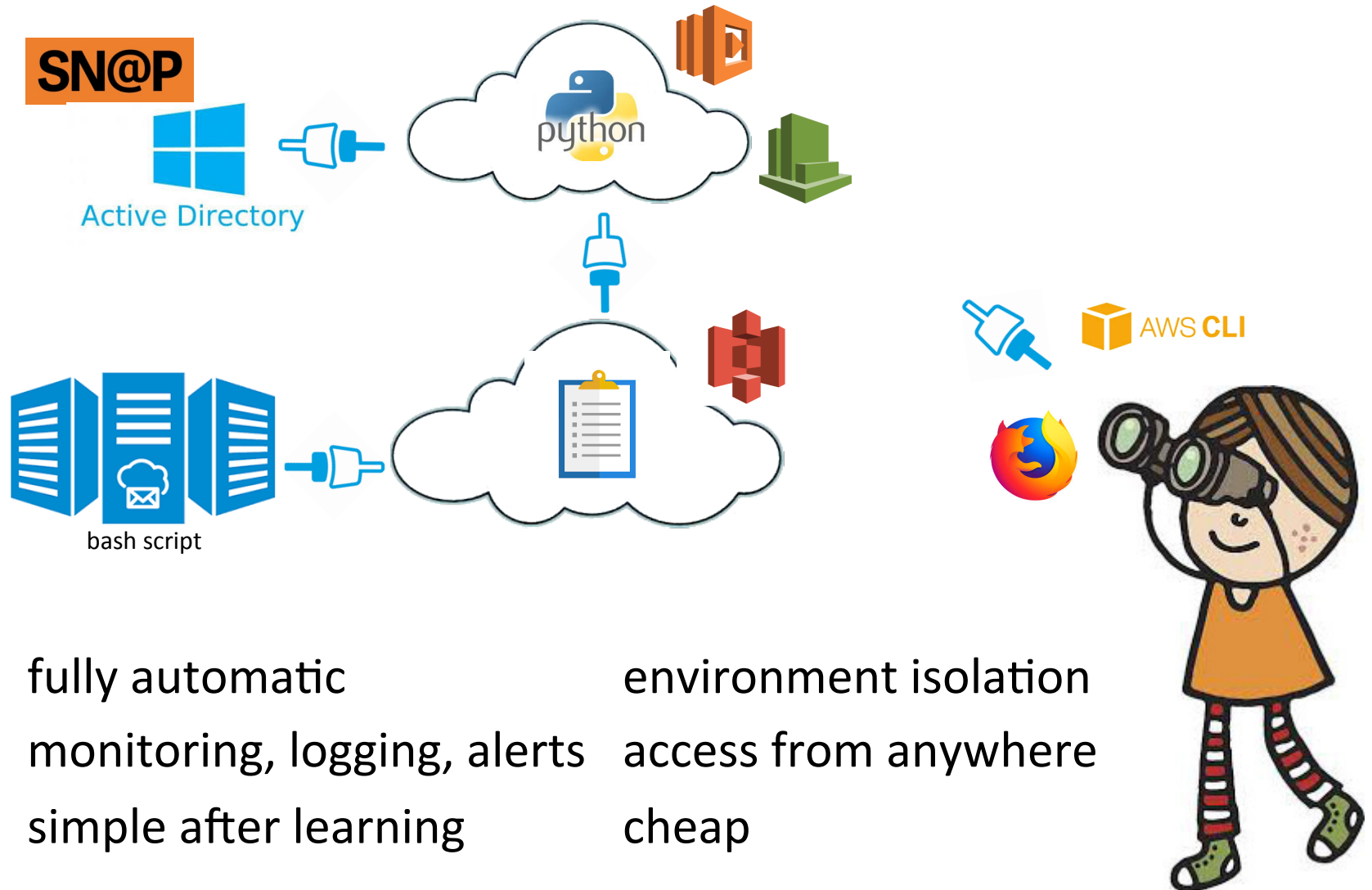


Bash at SMTP Servers

```
timestamp= mod time($SMTP_SERVER_FILE)  
aws s3api get-object --if-modified-since $timestamp  
--bucket smtp-enabled  
--key authoritative-enabled-netids.tsv  
$SMTP_SERVER_FILE
```



In the Cloud



fully automatic
monitoring, logging, alerts
simple after learning

environment isolation
access from anywhere
cheap

Come Talk to Me



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