



# Standard Rubrik Pitch (Slide 1/100)



# Welcome to Rubrik Build

## APIs, Chatbots and Backups, Oh My!

There is really only one marketing slide

Mike Preston





Chris Kapusta





Mike McLain



**Tweets**  mwpreston  
**Codes**  mwpreston  
**Works** Developer Advocate  
@ Rubrik  
**Does** Coding, Writing, Talking  
**Likes** 🇨🇦 Maple Syrup & Hockey

**Tweets**  Pusta  
**Codes**  Pusta  
**Works** Principal Architect  
@ Insight CDCT  
**Does** Standing off to the side in  
presentations, Speaking, Coding  
**Likes** Video Games and Bourbon

**Tweets**  vmopr cmd  
**Codes**  vmopr cmd  
**Works** Architect, Data Protection  
@ Insight CDCT  
**Does** Coding, Testing, Problem Solving  
**Likes** SB Champions KC Chiefs, Aviation

# Taking a Different Approach with APIs

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## Full-featured APIs

Built API-first with a web UI that consumes its own APIs.

All functionality is exposed over REST, so you can easily integrate or build on top of Rubrik.



## User-friendly Resources

Get started immediately without any REST API knowledge.

Easy to access and learn with interactive documentation, sample code, and example use cases.



## Pre-built Integrations

Integrate with your existing tools or extend to any third party provider.

Easy to consume with pre-built integrations that are supported by our core engineering team.



# Rubrik Build

- An open source community around Cloud Data Management and protection
- Focus on education and tools
- There is no charge to participate or consume and all are welcome

<https://build.rubrik.com>



# Rubrik Build

Program Offerings

# Global Workshops

The workshops cover the following:

- Welcome to Rubrik Build
- Introduction to Version Control with Git and GitHub
- Introduction to APIs
- Introduction to Programming Concepts
- Learning PowerShell (and other languages)
- Developing a CI Build & Release Pipeline



# Build the Future of Cloud Data Management



## Software Development Kits

 Go >


 PowerShell >


 Python >

[VIEW ALL SDKS](#)



## Tooling Integrations

 Ansible >


 VMware vRealize >

 Monitor Rubrik with Splunk >


[VIEW ALL INTEGRATIONS](#)



## Use Cases

 Roxie, Rubrik's Intelligent Personal As... >

 Backup Validation with PowerShell >

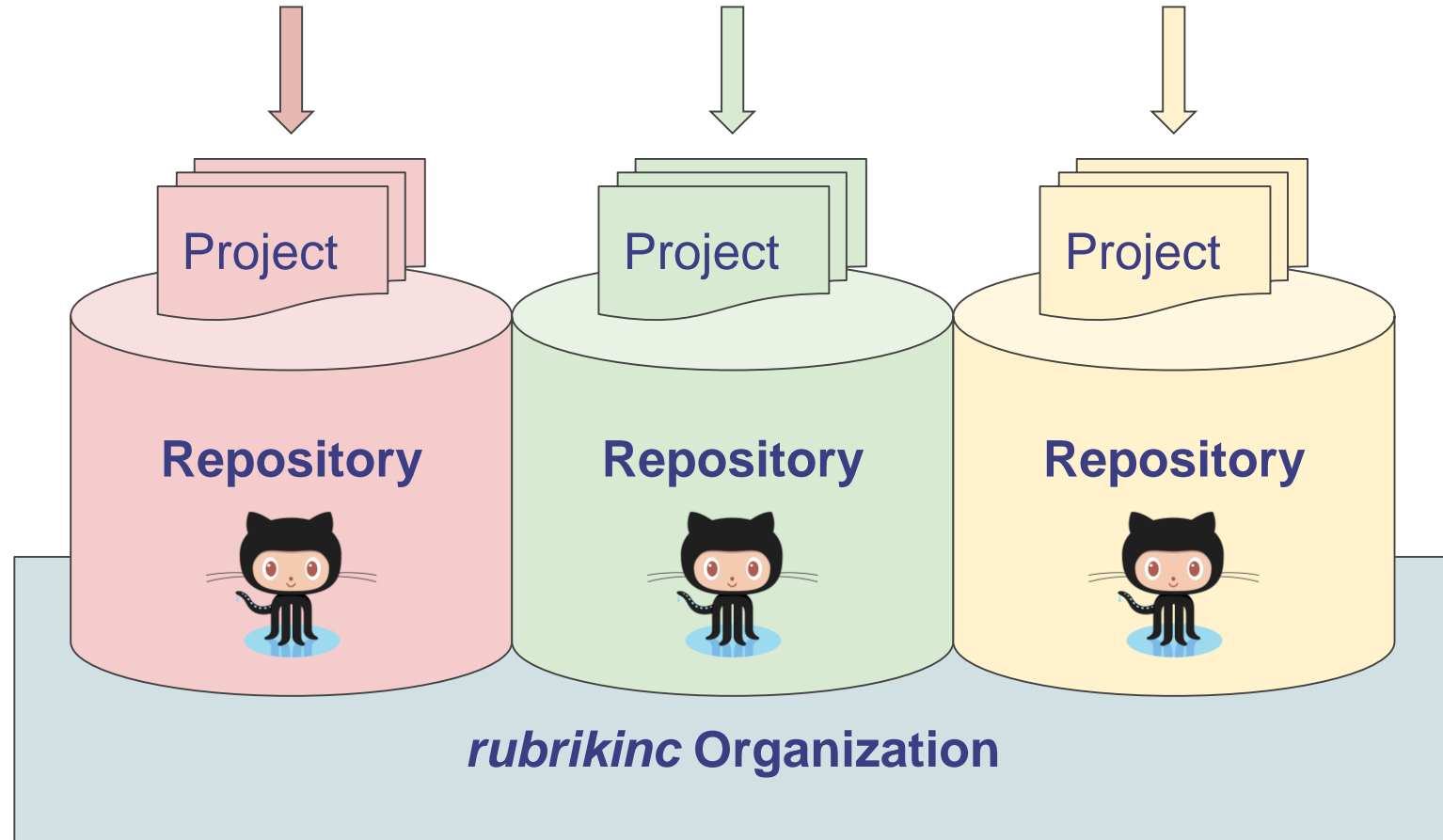
 Provision and Protect with vRealize >

[VIEW ALL USE CASES](#)



# Content Repository

- All code, documentation, and community discussion occurs on GitHub.
- Each project is stored in its own repository.



# Documentation

## Quick Start Guide: Roxie Bot

### Table of Contents

- [Introduction to the Roxie Bot](#)
- [Rubrik Cluster Configuration](#)
  - [Generate a Rubrik API Token](#)
- [AWS Environment Configuration](#)
  - [VPC Networking](#)
  - [IAM Roles](#)
    - [Role for AWS Lambda](#)
    - [Role for AWS Lex](#)
- [AWS Lambda](#)
  - [Function Creation](#)
  - [Modifying the Lambda Role](#)
  - [Function Configuration](#)
    - [Function Code](#)
    - [Environmental Variables](#)
    - [Network](#)
  - [Function Testing](#)
  - [Troubleshooting](#)



SDKs ▾ TOOLING INTEGRATIONS ▾ USE CASES COMMUNITY ▾

Overview > Use Cases > [Roxie, Rubrik's Intell...](#)



## Roxie, Rubrik's Intelligent Persona Assistant

Construct a Roxie of your very own and explore the idea behind run ChatBot that can interpret spoken or written words to determine int This project is all about learning how to construct API calls to Rubril AWS Lambda functions, design an AWS Lex ChatBot, and put it all together!



Quick Start

Get started with this use case [↗](#)



Code

Check out the code on GitHub [↗](#)



Documentation

Read the API documentation [↗](#)





# Contributing

# Code Contributions

- Pull Requests (PRs) are used by individuals who wish to contribute to a project. The high level workflow is as follows:
  - Individual creates a Fork of a Rubrik Build project to their own GitHub account.
  - Individual makes changes to the Fork copy of the project.
  - Individual submits a PR requesting that the Rubrik Build project “pull in” their changes.
- Issues are also helpful. Help us identify problems!



# Non-Code Contributions

- Hosting or speaking at meetups
- Artistic contributions
- Updating existing documentation and adding new features
- Translation and localization
- GitHub management (tags, issue triage, etc.)



@atscomposer I merged an example change over to your fork in the `Get-RubrikSetting` function just to showcase some of my thoughts 👍



Shuttleworth, Adam added some commits 3 hours ago



Updated to include new functions in FunctionsToExport.

842645d



Renamed file

2888b80



Modified with new function names.

78feef6



Minor update to help section

5a30d12



Updated parameters.

✓ f603082



chriswahl self-assigned this an hour ago



chriswahl added the `status-2-code-review` label an hour ago



chriswahl added some commits 19 minutes ago

# Work Together on Features

“

**As a new Rubrik customer I wanted to be able to set some of these settings and configurations via script and found adding them to the SDK was easier than I thought. :)**

<https://github.com/rubrikinc/rubrik-sdk-for-powershell/pull/263>



# Use Case Overview

Roxie



# What are we working with?



Rubrik CDM



Python



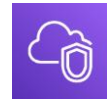
Amazon Lex



AWS IAM



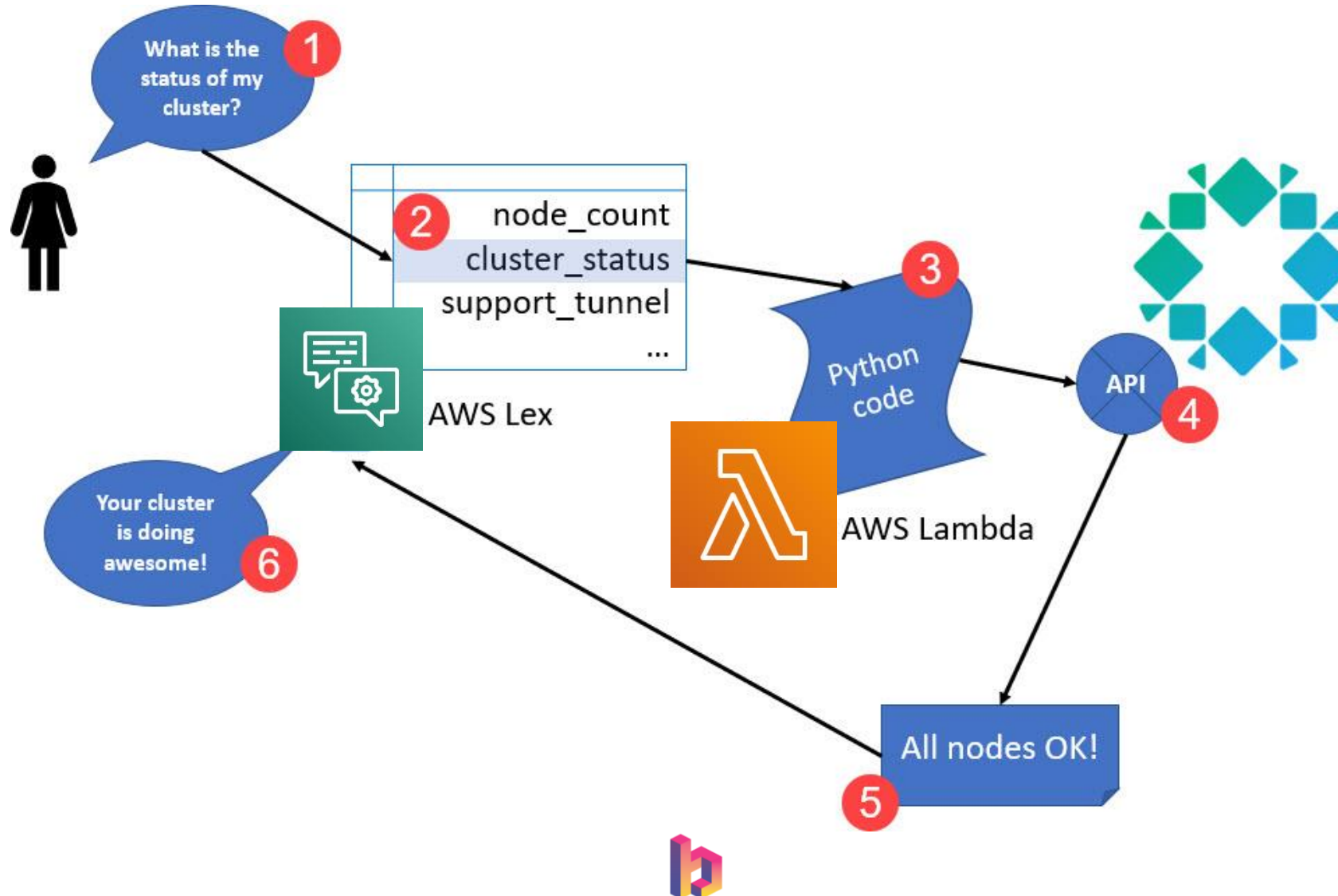
AWS Lambda



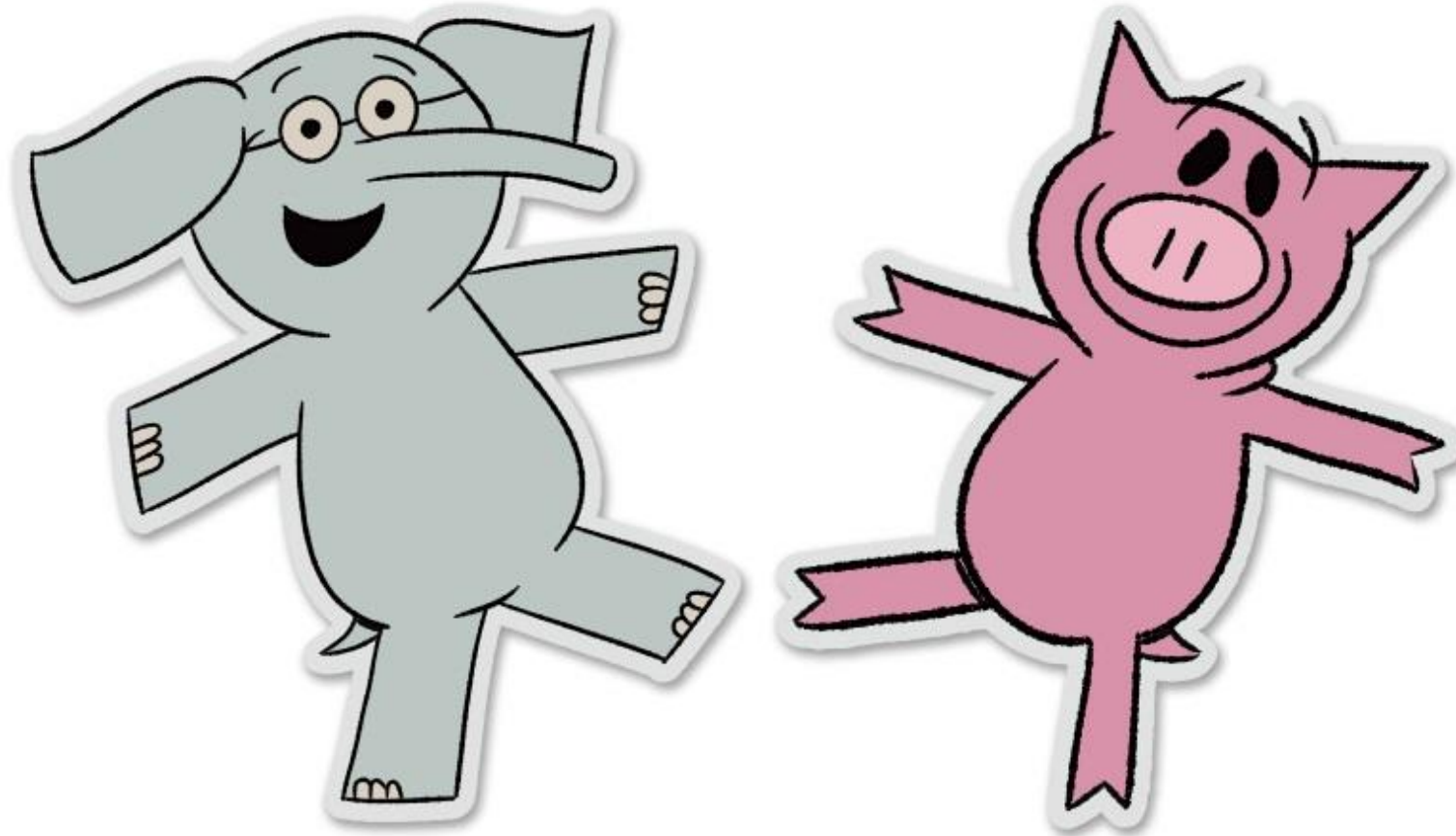
AWS VPC



# High Level Diagram



# Demo Time – A look at Roxie (in the Insight Lab)



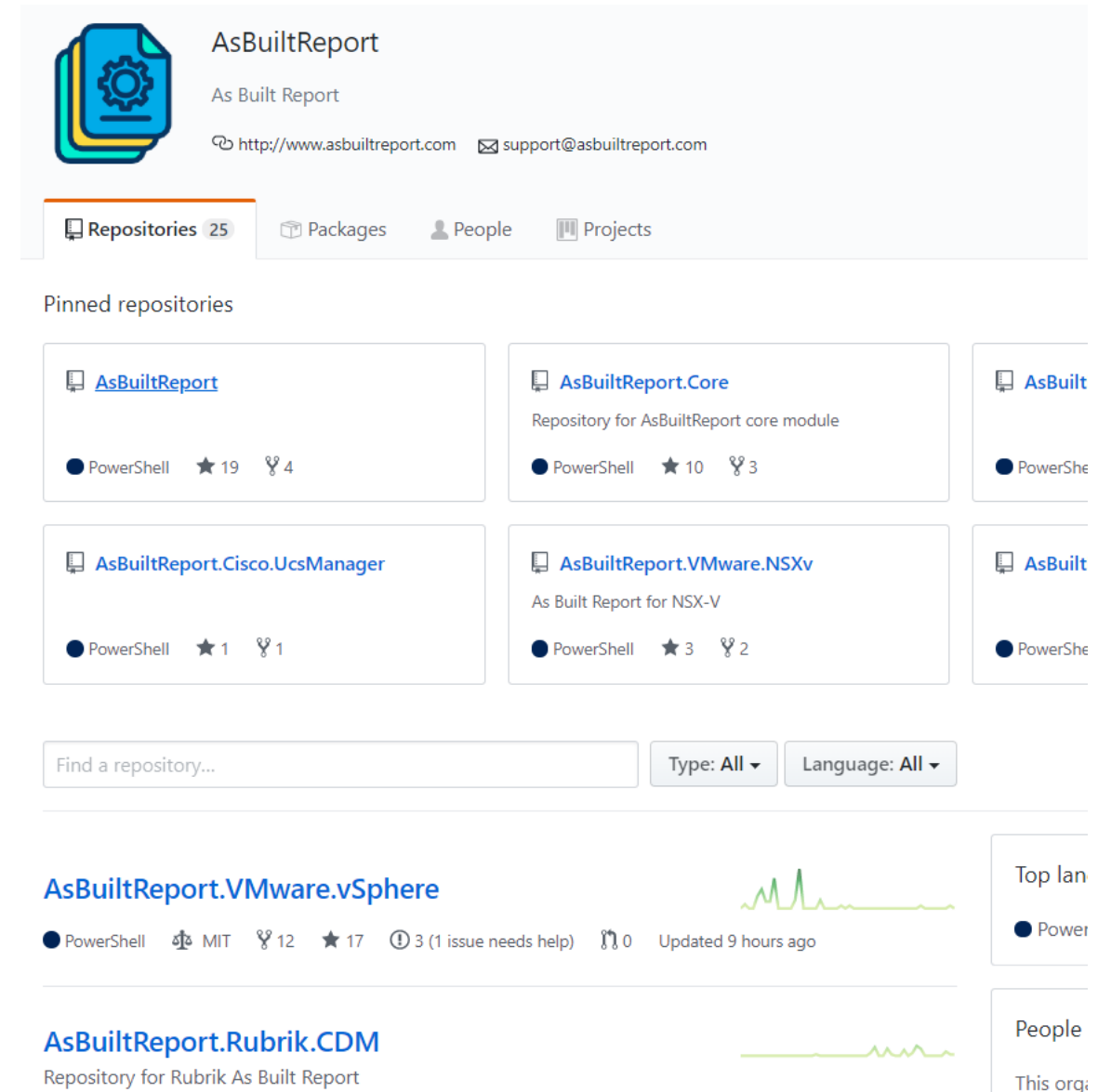


# Use Case Overview

## Rubrik As Built Report

# What is the As Built Report project

- Open Source Configuration Document Framework created by Tim Carman and Matt Allford
- Written in PowerShell
- Modular design provides ease of updates
- Multiple detail levels for granular control of reports
- Multiple output types (HTML, DOCX, XML, & TEXT)



The screenshot shows the GitHub repository page for AsBuiltReport. At the top, the repository name "AsBuiltReport" is displayed with its description "As Built Report", website "http://www.asbuiltreport.com", and email "support@asbuiltreport.com". Below this are tabs for "Repositories 25", "Packages", "People", and "Projects". The "Pinned repositories" section lists several repositories: "AsBuiltReport" (PowerShell, 19 stars, 4 forks), "AsBuiltReport.Core" (PowerShell, 10 stars, 3 forks), "AsBuiltReport.Cisco.UcsManager" (PowerShell, 1 star, 1 fork), and "AsBuiltReport.VMware.NSXv" (PowerShell, 3 stars, 2 forks). A search bar and filters for "Type: All" and "Language: All" are present. Below, the repository "AsBuiltReport.VMware.vSphere" is highlighted, showing it is a PowerShell project with MIT license, 12 forks, 17 stars, 3 issues (1 needs help), and 0 pull requests, updated 9 hours ago. At the bottom, "AsBuiltReport.Rubrik.CDM" is listed as the repository for Rubrik As Built Report. On the right side, there are sections for "Top languages" (showing PowerShell) and "People" (showing the organization).



# Rubrik As Built Report Module

- 100% reliant on the Rubrik SDK for PowerShell
- Divided into 4 main sections
  - Cluster Settings – DNS, Network, Security, Users, Storage, etc..
  - SLA Domains – RPO, Archive, Replication, Object inclusion
  - Protected Objects – Name, Type, Metadata, Snapshot information
  - Unprotected Objects – Name, Relic status, Retention status

The following section provides information on the configuration of the Rubrik CDM Cluster Cluster\_B

Name	Cluster_B
Number of Briks	1
Number of Nodes	4
Software Version	5.0.3-p3-2397

## 1.1.1 Cluster Storage Details

Total Usable Storage (TB)	30.1
Used Storage (TB)	3
Available Storage (TB)	27

## 1.1.2 Network Settings

The following contains network related settings for the cluster

### 1.1.2.1 Cluster Interfaces

Interface Name	Type	Node	IP Addresses	Subnet Mask
bond0	Management	RVM182S004243	192.168.150.121	255.255.255.0
bond0	Management	RVM182S004439	192.168.150.122	255.255.255.0
bond0	Management	RVM182S004912	192.168.150.123	255.255.255.0
bond0	Management	RVM182S004944	192.168.150.124	255.255.255.0

### 1.1.2.2 DNS Configuration

DNS Servers	10.10.15.5 10.10.12.131 10.10.12.132 10.10.12.133 10.10.10.5
Search Domains	rubrik.us adpaper.local

### 1.1.2.3 NTP Configuration

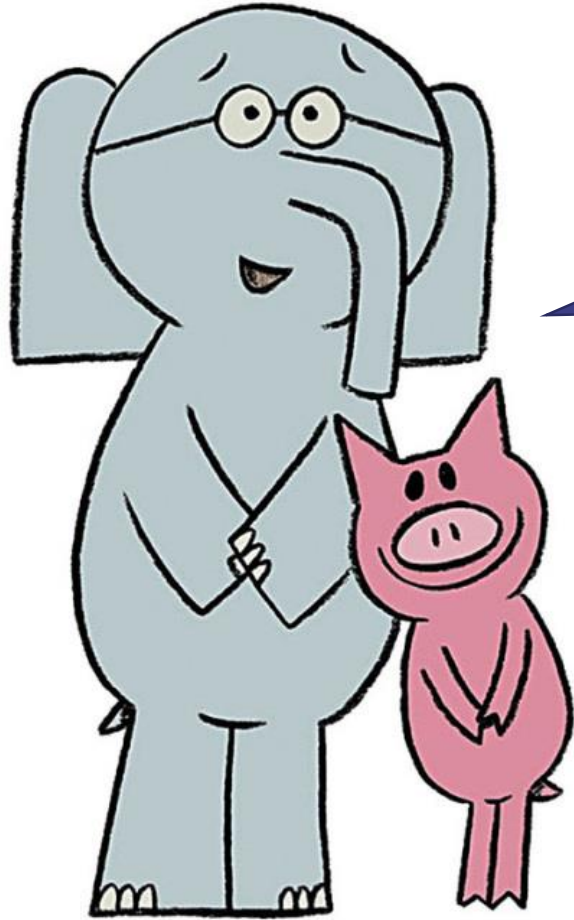
Server
pool.ntp.org

### 1.1.2.4 Network Throttling

Resource ID	Enabled	Default Throttle Limit
ArchivalEgress	False	9223372036854.77
ReplicationEgress	False	9223372036854.77



# Demo Time – A look at the Rubrik As Built Report



Today is cable management day in the lab – so, yeah, a video!



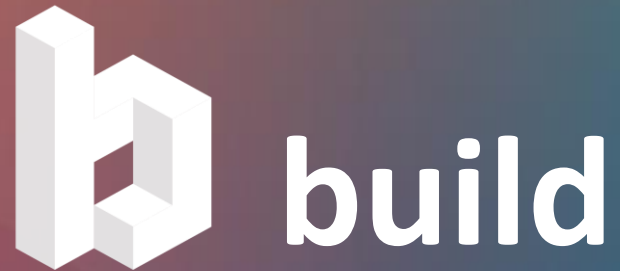
PS C:\Users\mwpreston>



# Now What?

- Set up Roxie in your own environment
- Fork the repo, and add your own functions
  - Submit a PR and show us your work
- Run the As Built Report in your environment
  - Submit issues on GitHub
- More than just Chatbots & Reports – Ansible, PowerShell, Terraform, CloudFormation, ARM, Python....
- Join the Rubrik Build Slack channel – <https://slack-invite-automation.azurewebsites.net>
  - Password: build
- Follow @RoxieAtRubrik and @RubrikBuild





Building the Future of Data Management

Slides, Code, & Links all located on  
<https://github.com/mwpreston/presentations>