

Kubernetes Example Install Journal Platform 2022.06.00 GA install App/Helm 3.4.0/1.3.0

Tuesday, 2 August 2022 10:10 AM

First version using "Date Versioning" 

See <https://documentation.cluedin.net/kb/platform-versioning#date-versioning>

Objective

To take an existing CluedIn 3.3.2 environment standard production setup that was manually installed in Azure Kubernetes Services (AKS) and fresh install to latest GA (only reusing the node pools- everything else will go). This is not a quick start guide - recommend you read this with the other journals and the release notes.

Background

Kubectrl, Azure Portal and Lens (<https://k8slens.dev/>) will be used.

Helm and other dependances were installed and updated using <https://chocolatey.org/>

Latest release notes

□ Platform Release Notes: <https://cluedin-io.github.io/Releases/2022.06/2022.06.00>

🔗 Helm Release Notes: <https://github.com/CluedIn-io/Charts/releases/tag/cluedin-platform-1.3.0>

link to all release notes ever <https://documentation.cluedin.net/release-notes>

Documentation portal

<https://documentation.cluedin.net/>

Journal

Scripts from <https://github.com/CluedIn-io/ImpTools/tree/master/k8s/pwsh> were used.

I keep a separate copy of those scripts per cluster that I manage, and I run login.ps1 to ensure I'm in the correct context.

login to k1 k8s - nothing running - pods have already all been scaled to 0

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> .\login.ps1
Switched to context "APAC-demo-k8s".
NAME                                STATUS    ROLES    AGE   VERSION
aks-corepool-17590510-vmss000001   Ready    agent    55d   v1.20.9
aks-datapool-17590510-vmss000016   Ready    agent    55d   v1.20.9
aks-datapool-17590510-vmss000017   Ready    agent    55d   v1.20.9
aks-generalpool-17590510-vmss000016 Ready    agent    55d   v1.20.9
aks-generalpool-17590510-vmss000017 Ready    agent    55d   v1.20.9
aks-processpool-17590510-vmss000001 Ready    agent    55d   v1.20.9
cluedin-haproxy-ingress             LoadBalancer 10.0.90.9 20.193.9.158
80:30025/TCP,443:30007/TCP          160d
Server:  dns.opendns.com
Address:  208.67.222.222

Non-authoritative answer:
Name:     k1.cluedin.me
Address:  20.193.9.158





PS C:\rudi.harris\k8s\cluedin\apac-demo> .\gp.ps1
NAME                                READY    STATUS    RESTARTS   AGE
cluedin-prometheus-node-exporter-82gqx 1/1      Running    0           53d
cluedin-prometheus-node-exporter-clgmn 1/1      Running    0           53d
cluedin-prometheus-node-exporter-d6p67 1/1      Running    0           53d
cluedin-prometheus-node-exporter-dfwxn 1/1      Running    0           53d
cluedin-prometheus-node-exporter-gr16k 1/1      Running    0           53d
cluedin-prometheus-node-exporter-msv44 1/1      Running    0           53d
init-neo4j-job-nqwsn                   0/1      Completed 0           13d
init-sqlserver-job-6dbb7                0/1      Completed 0           13d
```

examine current state with lens

update helm repo

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> helm repo update
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "cluedin" chart repository
Update Complete. ☺Happy Helming!☺
```

what chart version is available?

Charts				
Releases				
Search Helm Charts...				
Name	Description	Version	App Version	Repository
 cluedin	Deploys the Cluedin Application	3.2.5		cluedin
 cluedin-application	Deploys the applications for the Cluedin platform	1.3.0		cluedin
 cluedin-infrastructure	Deploys infrastructure for Cluedin Platform	1.3.0		cluedin
 cluedin-platform	Deploys all parts of the Cluedin platform	1.3.0		cluedin

releases state?

		Charts		Releases				
Releases		1 item		Namespace: cluedin		Search Releases...		
<input type="checkbox"/>	Name	Namespace	Chart	Revision	Version	App Version	Status	Updated
<input type="checkbox"/>	cluedin-demo	cluedin	cluedin-platform	15	1.2.0	3.3.2	Deployed	13d

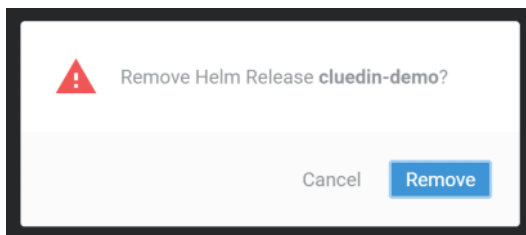
uninstall release - aka DELETE

		Charts		Releases				
Releases		1 item		Namespace: cluedin		Search Releases...		
<input type="checkbox"/>	Name	Namespace	Chart	Revision	Version	App Version	Status	Updated
<input type="checkbox"/>	cluedin-demo	cluedin	cluedin-platform	15	1.2.0	3.3.2	Deployed	14d

Rollback

Upgrade

Delete



Check how the delete release went...

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> .\login.ps1
Switched to context "APAC-demo-k8s".
NAME                                STATUS    ROLES    AGE    VERSION
aks-corepool-17590510-vmss000001    Ready    agent    56d    v1.20.9
aks-datapool-17590510-vmss000016    Ready    agent    56d    v1.20.9
aks-datapool-17590510-vmss000017    Ready    agent    56d    v1.20.9
aks-generalpool-17590510-vmss000016 Ready    agent    56d    v1.20.9
aks-generalpool-17590510-vmss000017 Ready    agent    56d    v1.20.9
aks-processpool-17590510-vmss000001 Ready    agent    56d    v1.20.9
No resources found in cluedin namespace.
Server:  dns.opendns.com
Address:  208.67.222.222

Non-authoritative answer:
Name:     k1.cluedin.me
Address:  20.193.9.158
```

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> .\gp.ps1
No resources found in cluedin namespace.
```

We have a few resources present - let's reuse these to save setup time

certs and secrets - docker key etc

ConfigMaps

Secrets

Resource Quotas

Limit Ranges

HPA

Pod Disruption Budgets

Priority Classes

Config Maps

2 items

Namespace: cluedin

Search Config Maps...

<input type="checkbox"/>	Name	Namespace	Keys	Age
<input type="checkbox"/>	kube-root-ca.crt	cluedin	ca.crt	259d
<input type="checkbox"/>	ingress-controller-leader-haproxy	cluedin		259d

Secrets					
8 Items		Namespace: cluedin		Search Secrets	
<input type="checkbox"/>	Name	Namespace	Labels	Keys	Type
<input type="checkbox"/>	cluedin-admission	cluedin		ca, cert, key	Opaque
<input type="checkbox"/>	cluedin-cert-manager-webhook-ca	cluedin		ca.crt, tls.crt, tls.key	Opaque
<input type="checkbox"/>	cluedin-hooks-token-nvcxw	cluedin		ca.crt, namespace, tok...	kubernetes.io/service...
<input type="checkbox"/>	cluedin-root-secret	cluedin		ca.crt, tls.crt, tls.key	kubernetes.io/tls
<input type="checkbox"/>	cluedin-server-tls	cluedin		ca.crt, keystore.p12, tl...	kubernetes.io/tls
<input type="checkbox"/>	default-token-6fqf4	cluedin		ca.crt, namespace, tok...	kubernetes.io/service...
<input type="checkbox"/>	docker-registry-key	cluedin		.dockerconfigjson	kubernetes.io/dockerc...
<input type="checkbox"/>	ingress-cert-secret	cluedin		tls.crt, tls.key	kubernetes.io/tls

delete PVCs

note: this is where we could have potentially upgraded and preserved data/config/etc

Persistent Volume Claims					
9 Items		Namespace: cluedin		Search Persistent Vol	
<input type="checkbox"/>	Name	Namespace	Storage class	Size	Pods
<input type="checkbox"/>	cluedin-elasticsearch-cluedin-elasticsearch-0	cluedin	default	4Gi	160d
<input type="checkbox"/>	cluedin-openrefine-data	cluedin	default	512Mi	160d
<input type="checkbox"/>	cluedin-sqlserver-backup	cluedin	default	8Gi	160d
<input type="checkbox"/>	cluedin-sqlserver-data	cluedin	default	8Gi	160d
<input type="checkbox"/>	cluedin-sqlserver-master	cluedin	default	8Gi	160d
<input type="checkbox"/>	cluedin-sqlserver-translog	cluedin	default	8Gi	160d
<input type="checkbox"/>	data-cluedin-rabbitmq-0	cluedin	default	4Gi	160d
<input type="checkbox"/>	dataclir-cluedin-neo4j-core-0	cluedin	default	8Gi	160d
<input type="checkbox"/>	redis-data-cluedin-redis-master-0	cluedin	default	512Mi	160d

Remove 9 items cluedin-elasticsearch-cluedin-elasticsearch-0, cluedin-openrefine-data, cluedin-sqlserver-backup, cluedin-sqlserver-data, cluedin-sqlserver-master, and 4 more?

Cancel

Remove


check if anything else needs removal

clicking through the rest of the tabs in lens it all looks good

review release notes

Release Notes

- Platform Release Notes: <https://cluedin-io.github.io/Releases/2022.06/2022.06.00>
- Helm Release Notes: <https://github.com/CluedIn-io/Charts/releases/tag/cluedin-platform-1.3.0>

-  Home Release Notes: <https://cluedin-io.github.io/Home/3.4.0>

confirm the tag to use

<https://cluedin-io.github.io/Releases/2022.06/2022.06.00>

Docker Image	Tags
cluedin/cluedin-server	2022.06.00, 2022.06, 3.4, 3.4-alpine, 3.4.0, 3.4.0_43401, 3.4.0_43401-alpine, 3.4.0-alpine
cluedin/cluedin-server	2022.06.00-ubuntu, 2022.06-ubuntu, 3.4-ubuntu, 3.4.0_43401-ubuntu, 3.4.0-ubuntu
cluedin/nuget-installer	2022.06.00, 2022.06, 3.4, 3.4-alpine, 3.4.0, 3.4.0_43401, 3.4.0_43401-alpine, 3.4.0-alpine
cluedin/nuget-installer	2022.06.00-ubuntu, 2022.06-ubuntu, 3.4-ubuntu, 3.4.0_43401-ubuntu, 3.4.0-ubuntu

Features

- Add `Processing.MergeEntities.MoveRelationships` flag to control edge merging behavior on entity merge
- Allow `MessageBusWatchdog` to continue monitoring additional subscriptions if exception has been thrown (AB#9525)
- Remove mesh commands on run and introduce `Mesh.DeleteOnRun` flag to turn it off
- Add controller and helper class for Excel Addin Cluster API calls
- Added the ability to store a theme to the `OrganizationProfile` (AB#11477)
- Added 'Matches pattern' and 'Does not match pattern' operators for rule processing. Pattern matching is not available for streams export, or glossary terms.
- Create entity type page templates (AB#10340, AB#10341)

mmmm, we have advice about a storageClass we require for AKS

is it true? yes - we need to use this section as in the example below merged with our global section in the values yml

<https://github.com/Cluedin-io/Charts/releases/tag/cluedin-platform-1.3.0>

Features

- [cluedin-application] Improve startup/scale-up performance with Nuget restore.

Introduction of `init-cluedin` job. Instead of restoring nuget once per-instance (as an `Init-Container`) we now restore as a single job that runs in parallel with other jobs.

The result of the nuget restore/publish is shared via a small PVC with any `cluedin-server` pods.

The `packages` list is scanned for changes and if not changed then it skips the restore and uses previous packages.

To force a nuget restore set `application.system.runNugetFullRestore=true`

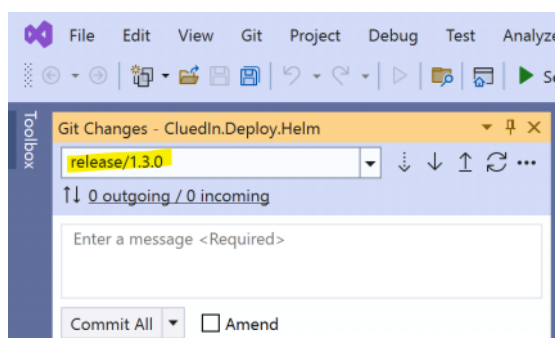
Important Note: If installing into AKS then you need to set the storageClass to `cluedin-azurefile` - this is due to the fact that AKS cannot share a mounted disk between nodes, so we need to use Azure Files instead.

```

global:
  containerImages:
    initCluedin:
      persistence:
        storageClass: "cluedin-azurefile-csi"
        dataAccessMode: "ReadWriteMany"
  
```

check defaults

check defaults in the helm chart around this one



```

values.yaml
58     preinstallkey: # Key of the pre-install script
59     postInstall: "" # ConfigMap name containing the script
60     postInstallKey: "" # Key of the post-install script
61     initNeo4J:
62       image:
63         repository: "cluedin/neo4j-init"
64         pullPolicy: "Always"
65     initCluedIn:
66       image:
67         repository: "cluedin/nuget-installer"
68         pullPolicy: "Always"
69       persistence:
70         storageClass: ""
71         dataAccessMode: ReadWriteOnce
72         dataSize: 500Mi
73       storageClass:
74     cleanup:
75       image:
76         registry: 'docker.io'
77         repository: "bitnami/kubectl"

```

class type confirmed for AKS

```

azure-file-storage.yaml
1  kind: StorageClass
2  apiVersion: storage.k8s.io/v1
3  metadata:
4    name: cluedin-azurefile-csi
5    labels:
6      {{- include "common.labels.standard" . | nindent 4 }}
7    provisioner: file.csi.azure.com # replace with "kubernetes.io/azure-file" if aks version is less than 1.21
8    allowVolumeExpansion: true
9    mountOptions:
10     - dir_mode=0777
11     - file_mode=0777
12     - uid=1000
13     - gid=1000
14     - mfsymlinks
15     - cache=strict
16     - actimeo=30
17    parameters:
18     skuName: Standard_LRS
19

```

update chart and install script

update tag at the top to 2022.06.00

check nugets - no change

CluedIn.Connector.SqlServer - 3.3.0 is still latest
CluedIn.Provider.ExternalSearch.Libpostal - 3.3.2 is still latest

insert AKS storage class tag as per [chart 1.3.0 release notes](#)

final

```

global:
  image:
    tag: "2022.06.00"
    pullPolicy: "IfNotPresent"
  containerImages:
    initCluedIn:
      persistence:
        storageClass: "cluedin-azurefile-csi"
        dataAccessMode: "ReadWriteMany"
  ingress:
    forceHttps: true
    annotations:
      ingress.kubernetes.io/ssl-redirect: "true"
    tls:
      secretName: "ingress-cert-secret"
  dns:
    hostname: "k1.cluedin.me"
  environment: "Production" # Environment (e.g Production or Development)

```

helm upgrade script updated to

```

helm upgrade cluedin-demo cluedin/cluedin-platform \
-n cluedin \
--install \
--version 1.3.0 \
--values values.2022.06.00.yaml

```

mmmm, release notes for charts

Set minimum Kubernetes version to 1.21

let's check the nodes

Nodes 6 items						
Name ▾	CPU ▾	Memory ▾	Disk ▾	Tain... ▾	Roles ▾	Version ▾
aks-corepool-17590510-vms...				0	agent, agent	v1.20.9
aks-datapool-17590510-vms...				0	agent, agent	v1.20.9
aks-datapool-17590510-vms...				0	agent, agent	v1.20.9
aks-generalpool-17590510-v...				0	agent, agent	v1.20.9
aks-generalpool-17590510-v...				0	agent, agent	v1.20.9
aks-processpool-17590510-v...				0	agent, agent	v1.20.9

need to upgrade all nodes in AKS!!

click version

APAC-demo-k8s

Kubernetes service

Search (Ctrl+J)

Create ▾ Connect Start Stop Delete Refresh Give feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnostics and solve problems

Essentials

Resource group : [APAC-demo-k8s-rg](#)

Status : Succeeded (Running)

Location : Australia East

Subscription : [Cluedin](#)

Kubernetes version : **1.20.9**

API server address : apac-demo-k8s

Network type (plugin) : [Kubenet](#)

Node pools : [4 node pools](#)

click "Upgrade version"

Save Discard Troubleshoot

Upgrade

You can upgrade your cluster to a newer version of Kubernetes or configure node pools. To upgrade individual node pools, go to the 'Node pools' menu.

[Learn more about upgrading your AKS cluster](#)

[View the Kubernetes changelog](#)

Kubernetes version

1.20.9

Upgrade version

API server availability ⓘ

☐ 99.95%

Optimize for availability.

☒ 99.5%

Optimize for cost.

Enable secret store CSI driver ⓘ

☐

Kubernetes authentication and authorization

Authentication and authorization are used by the Kubernetes cluster to control access to the cluster.

Role-based access control (RBAC) ⓘ

Enabled

AKS-managed Azure Active Directory ⓘ

☐

choose the latest available

Upgrade Kubernetes version



You can upgrade your cluster to a newer version of Kubernetes or configure automatic upgrade settings. If you upgrade your cluster, you can choose whether to upgrade only the control plane or to also upgrade all node pools. To upgrade individual node pools, go to the 'Node pools' menu item instead.

[Learn more about upgrading your AKS cluster](#)

[View the Kubernetes changelog](#)

Kubernetes version ①

Upgrade scope ①

☒ Upgrade control plane + all node pools

☐ Upgrade control plane only

Save

waiting....

according to lens the version is up to date

Name	CPU	Memory	Disk	Tain...	Roles	Version	Age
aks-corepool-17590510-vms...				0	agent, agent	v1.21.14	3m57s
aks-datapool-17590510-vms...				0	agent, agent	v1.21.14	4m31s
aks-datapool-17590510-vms...				0	agent, agent	v1.21.14	68s
aks-generalpool-17590510-v...				0	agent, agent	v1.21.14	4m57s
aks-generalpool-17590510-v...				0	agent, agent	v1.21.14	116s
aks-processpool-17590510-v...				0	agent, agent	v1.21.14	5m1s

save has finished on the web page... so... looks like it took between 10 and 12 minutes to upgrade the kubernetes version

let's run helm upgrade

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> cat .\helm_upgrade-2022.06.00.ps1
helm upgrade cluedin-demo cluedin/cluedin-platform --n cluedin --install --version 1.3.0 --values values.2022.06.00.yml
```

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> .\helm_upgrade-2022.06.00.ps1
Release "cluedin-demo" does not exist. Installing it now.
```

```
NAME: cluedin-demo
LAST DEPLOYED: Tue Aug 2 16:51:54 2022
NAMESPACE: cluedin
STATUS: deployed
REVISION: 1
NOTES:
.
=====
[ Mode : [INSTALL]
[ Chart : cluedin-platform [v1.3.0]
[ Namespace : cluedin
[ Domain : *.k1.cluedin.me
[ TLS : [ENABLED] Cert Secret: ingress-cert-secret
=====
[ Global Image Tag : 2022.06.00
[ Global Registry : docker.io
[ Global Pull Policy : IfNotPresent
[ Global ImagePullSecret : ..
[ Global ServiceAccount : cluedin-serviceaccount
[ Global Environment : Production
[ Global Strategy : RollingUpdate
[ Global UploadLimit : 1gb
=====
[ CluedIn Server : docker.io/cluedin/cluedin-server:2022.06.00
[ CluedIn Nuget Install : docker.io/cluedin/nuget-installer:2022.06.00
[ CluedIn Controller : docker.io/cluedin/controller:2022.06.00
[ Annotation : docker.io/cluedin/cluedin-micro-annotation:2022.06.00
[ Prepare : docker.io/cluedin/cluedin-micro-clean:2022.06.00
[ DataSource : docker.io/cluedin/cluedin-micro-datasource:2022.06.00
[ Submitter : docker.io/cluedin/cluedin-micro-submitter-node:2022.06.00
[ GQL : docker.io/cluedin/cluedin-ui-gql:2022.06.00
[ UI : docker.io/cluedin/ui:2022.06.00
[ WebAPI : docker.io/cluedin/app:2022.06.00
[ InitWait : docker.io/groundnuty/k8s-wait-for:v1.3
[ InitCleanUp : docker.io/bitnami/kubect1:latest
[ InitSQL : docker.io/cluedin/sqlserver-init:2022.06.00
[ InitNeo4J : docker.io/cluedin/neo4j-init:2022.06.00
=====
```



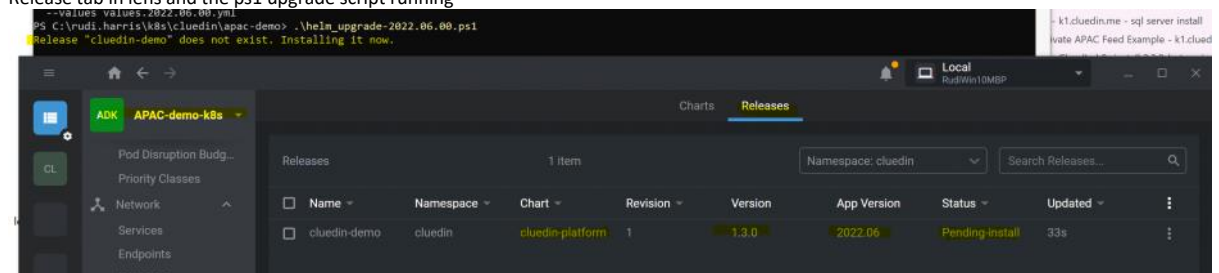
```

=====
[ SQL Server           : mcr.microsoft.com/mssql/server:2017-latest
[ OpenRefine           : docker.io/cluedin/openrefine:2022.06.00
[ Elasticsearch         : docker.elastic.co/elasticsearch/elasticsearch:7.8.0
[ Neo4j                 : neo4j:3.5.34
[ RabbitMQ             : docker.io/bitnami/rabbitmq:3.10.6-debian-11-r5
[ Redis                : docker.io/bitnami/redis:6.2.7-debian-11-r11
[ AlertManager         : quay.io/prometheus/alertmanager:v0.24.0
[ Prometheus           : quay.io/prometheus/prometheus:v2.36.1
[ Grafana              : grafana/grafana:
[ Prometheus Operator   : quay.io/prometheus-operator/prometheus-operator:v0.57.0
=====
[ Cluedin              : [ENABLED]
[ Roles                : Main ☒ - Processing ☒ - Crawling ☐
[ Connection (mssql)   : AuthenticationStore (DataStore.Db.Authentication) - User:
clientUser
[ Connection (mssql)   : AuditLog (DataStore.Db.AuditLog) - User: clientUser
[ Connection (mssql)   : BlobStorage (DataStore.Db.BlobStorage) - User: clientUser
[ Connection (mssql)   : ConfigurationStore (DataStore.Db.Configuration) - User:
clientUser
[ Connection (mssql)   : CluedInEntities (DataStore.Db.OpenCommunication) - User:
clientUser
[ Connection (mssql)   : TokenStore (DataStore.Db.TokenStore) - User: clientUser
[ Connection (mssql)   : Training (DataStore.Db.Training) - User: clientUser
[ Connection (mssql)   : ExternalSearch (DataStore.Db.ExternalSearch) - User:
clientUser
[ Connection (mssql)   : ML-Logging (DataStore.Db.ML-Logging) - User: clientUser
[ Connection (mssql)   : Metrics (DataStore.Db.Metrics) - User: clientUser
[ Connection (mssql)   : WebAppStore (DataStore.Db.WebApp) - User: clientUser
[ Connection (mssql)   : MicroServices (DataStore.Db.MicroServices) - User:
clientUser
[ Connection (rabbitmq) : MessageBus () - User: cluedin
[ Connection (rabbitmq) : MessageBusManagement () - User: cluedin
[ Connection (rabbitmq) : SignalRScaleOut () - User: cluedin
[ Connection (neo4j)    : GRAPHSTORE_READ () - User: neo4j
[ Connection (neo4j)    : GRAPHSTORE_WRITE () - User: neo4j
[ Connection (redis)    : CACHESTORE () - User: redis
[ Connection (redis)    : ETAGSTORE () - User: redis
[ Connection (redis)    : JOBSTORE () - User: redis
[ Connection (redis)    : DATAPROTECTIONPERSISTENCE () - User: redis
[ Connection (elasticsearch) : SEARCHSTORE () - User: elastic
=====
[ SQL SERVER           : [ENABLED]
[ Host Name            : cluedin-sqlserver
[ Host Port            : 1433
[ Timeout              : 15
[ Encrypted ?          : false
[ Extra Parameters     : MultipleActiveResultSets=True;Max Pool Size=
200;Pooling=True;
[ User                 : clientUser (cluedin-sqlserver-clientuser-secret)
[ User                 : sa (cluedin-sqlserver-secret)
=====
[ OpenRefine           : [ENABLED]
[ Host Name            : cluedin-openrefine
[ Host Port            : 3333
=====
[ Redis                : [ENABLED]
[ Host Name            : cluedin-redis-master
[ Host Port            : 6379
[ Encrypted ?          : false
[ User Secret          : cluedin-redis (redis-password)
=====
[ Neo4j                : [ENABLED]
[ Host Name            : cluedin-neo4j
[ Host HTTP Port       : 7474
[ Host BOLT Port       : 7687
[ User                 : neo4j
[ User Secret          : cluedin-neo4j-secrets (neo4j-password)
=====
[ Elasticsearch         : [ENABLED]
[ Host Name            : cluedin-elasticsearch
[ Host Port            : 9200
[ User Secret          : elasticsearch-credentials (password)
=====
[ RabbitMQ             : [ENABLED]
[ Host Name            : cluedin-rabbitmq
[ Host Port            : 5672
[ User                 : cluedin
[ User Secret          : cluedin-rabbitmq (rabbitmq-password)
=====
[ Bootstrap Org ?      : [YES => cluedin]
[ SSO                  : [DISABLED]
=====

```

watching it install

Release tab in lens and the ps1 upgrade script running



pods coming up

ADKAPAC-demo-k8s

Cluster

Nodes

Workloads

Overview

Pods

Deployments

DaemonSets

StatefulSets

ReplicaSets

Jobs

CronJobs

Config

ConfigMaps

Secrets

Resource Quotas

Limit Ranges

HPA

OverviewPodsDeploymentsDaemonSetsStatefulSetsReplicaSetsJobsCronJobs

Pods35 items

Namespace: cluedin

Search Pods...

<input type="checkbox"/>	Name	Containers	Restarts	Node	Age	Status	
<input type="checkbox"/>	cluedin-cert-manager-startupapicheck-fgq...	<div></div>	0	aks-datapool-1759051	13s	Pending	
<input type="checkbox"/>	cluedin-admission-patch-9b4qj	<div></div>	0	aks-datapool-1759051	58s	Succeeded	
<input type="checkbox"/>	cluedin-datasource-777cb98546-kf5sw	<div></div>	0	aks-processpool-1759	65s	Pending	
<input type="checkbox"/>	cluedin-controller-654fcff7d5-4s746	<div></div>	0	aks-generalpool-1759	66s	Pending	
<input type="checkbox"/>	cluedin-gql-7d8c7675-m49ts	<div></div>	0	aks-generalpool-1759	66s	Pending	
<input type="checkbox"/>	cluedin-grafana-58b479884-mb56q	<div></div>	0	aks-datapool-1759051	66s	Pending	
<input type="checkbox"/>	cluedin-haproxy-ingress-7bf66b99f5-6hbd4	<div></div>	0	aks-generalpool-1759	66s	Running	
<input type="checkbox"/>	cluedin-kube-state-metrics-5dcbd76477-vt...	<div></div>	0	aks-generalpool-1759	66s	Running	
<input type="checkbox"/>	cluedin-submitter-546595c89d-mn2mh	<div></div>	0	aks-generalpool-1759	66s	Pending	
<input type="checkbox"/>	cluedin-annotation-c7896d4d-4n5qd	<div></div>	0	aks-processpool-1759	67s	Pending	
<input type="checkbox"/>	cluedin-cert-manager-548c79d895-lqwk...	<div></div>	0	aks-processpool-1759	67s	Running	
<input type="checkbox"/>	cluedin-cert-manager-cainjector-6b8df6c8...	<div></div>	0	aks-datapool-1759051	67s	Running	
<input type="checkbox"/>	cluedin-cert-manager-webhook-54b67d9c...	<div></div>	0	aks-processpool-1759	67s	Running	

two issues - these will resolve themselves

cluedin-redis-master-0		Warning	aks-generalpool-1759	2m8s	Running
cluedin-server-6bdd95f4c4-q2tft	Warning	- MountVolume.SetUp failed for volume "cluedin-server-certificates" : secret "cluedin-server-tls" not found . 102s	aks-processpool-1759	2m8s	Pending
cluedin-server-processing-6bbc8b9c97-k26...	Warning		aks-processpool-1759	2m8s	Pending
cluedin-sqlserver-5fb59fcf9b-7bwzl		0	aks-datapool-1759051	2m8s	Running

cluedin-server-6bdd95f4c4-q2tft	Warning		aks-processpool-1759	2m22s	Pending
cluedin-server-processing-6bbc8b9c97-k26...	Warning	- 0/6 nodes are available: 6 pod has unbound immediate PersistentVolumeClaims. . 2m8s	aks-processpool-1759	2m22s	Pending
cluedin-sqlserver-5fb59fcf9b-7bwzl			aks-datapool-1759051	2m22s	Running

let's watch the jobs

Jobs	5 items				
		Namespace: cluedin		Search Jobs...	
	Name	Namespace	Completions	Age	Conditions
	cluedin-admission-patch	cluedin	1 / 1	2m44s	Complete
	cluedin-cert-manager-startupapicheck	cluedin	0 / 1	119s	
	init-cluedin-job	cluedin	0 / 1	2m53s	
	init-neo4j-job	cluedin	0 / 1	2m53s	
	init-sqlserver-job	cluedin	0 / 1	2m53s	

all jobs finished and complete

	Name	Namespace	Completions	Age	Conditions
	init-cluedin-job	cluedin	1 / 1	10m	Complete
	init-neo4j-job	cluedin	1 / 1	10m	Complete
	init-sqlserver-job	cluedin	1 / 1	10m	Complete

looking good - all pods running and green and happy

Overview Pods Deployments DaemonSets StatefulSets ReplicaSets Jobs CronJobs						
Pods						
35 items			Namespace: cluedin		Search Pods...	
<input type="checkbox"/> Name	Containers	Restarts	Node	Age	Status	
<input type="checkbox"/> alertmanager-cluedin-alertmanager-0	<div><div></div><div></div></div>	0	aks-datapool-17590510-v	18m	Running	
<input type="checkbox"/> prometheus-cluedin-prometheus-0	<div><div></div><div></div><div></div></div>	0	aks-datapool-17590510-v	18m	Running	
<input type="checkbox"/> cluedin-datasource-777cb98546-kf5sw	<div><div></div><div></div><div></div><div></div></div>	0	aks-processpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-controller-654fcff7d5-4s746	<div><div></div><div></div></div>	0	aks-generalpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-gql-7d8c7675-m49ts	<div><div></div><div></div><div></div><div></div><div></div><div></div></div>	0	aks-generalpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-grafana-58b479884-mb56q	<div><div></div><div></div><div></div></div>	0	aks-datapool-17590510-v	19m	Running	
<input type="checkbox"/> cluedin-haproxy-ingress-7bf66b99f5-6hbd4	<div><div></div></div>	0	aks-generalpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-kube-state-metrics-5dcdb76477-vtt4x	<div><div></div></div>	0	aks-generalpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-submitter-546595c89d-mn2mh	<div><div></div><div></div><div></div><div></div></div>	0	aks-generalpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-annotation-c7896d4d-4n5qd	<div><div></div><div></div><div></div><div></div><div></div></div>	0	aks-processpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-cert-manager-548c79d895-lgwkm	<div><div></div></div>	0	aks-processpool-1759051	19m	Running	
<input type="checkbox"/> cluedin-cert-manager-cainjector-6h8df6c89d-96z	<div><div></div></div>	0	aks-datapool-17590510-v	19m	Running	

note: IP address will change - fix up in DNS

re-run the login script to find the IP change

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> .\login.ps1
Switched to context "APAC-demo-k8s".
NAME                                STATUS    ROLES    AGE    VERSION
aks-corepool-17590510-vmss000001    Ready    agent    28m    v1.21.14
aks-datapool-17590510-vmss000016    Ready    agent    28m    v1.21.14
aks-datapool-17590510-vmss000017    Ready    agent    25m    v1.21.14
aks-generalpool-17590510-vmss000016  Ready    agent    29m    v1.21.14
aks-generalpool-17590510-vmss000017  Ready    agent    26m    v1.21.14
aks-processpool-17590510-vmss000001  Ready    agent    29m    v1.21.14
cluedin-haproxy-ingress              LoadBalancer  10.0.203.155  20.211.26.71  80:32033/TCP,443:31021/TCP    21m
Server:  dns.opendns.com
Address:  208.67.222.222

Non-authoritative answer:
Name:      k1.cluedin.me
Address:   20.211.26.71
```

fix DNS entries 2 A records

k1 and *.k1

```
PS C:\rudi.harris\k8s\cluedin\apac-demo> nslookup k1.cluedin.me
Server:  dns.opendns.com
Address:  208.67.222.222

Non-authoritative answer:
Name:      k1.cluedin.me
Address:   20.211.26.71

PS C:\rudi.harris\k8s\cluedin\apac-demo> nslookup app.k1.cluedin.me
Server:  dns.opendns.com
Address:  208.67.222.222

Non-authoritative answer:
Name:      app.k1.cluedin.me
Address:   20.211.26.71
```

test login


```
Pod cluedin-server-6bdd95f4c4-g2tft X +
Namespace cluedin Owner ReplicaSet cluedin-server-6bdd95f4c4 Pod cluedin-server-6bdd95f4c4-g2tft Container cluedin
[07:25:30 INF] HTTP GET /api/insight/all responded 200 in 794.4914 ms
[07:25:36 INF] HTTP GET /health/readiness responded 200 in 0.2983 ms
[07:25:36 INF] HTTP GET /api/account/available?clientId=cluedin responded 200 in 9.9831 ms
[07:25:36 INF] HTTP GET /api/integration/connector/all responded 200 in 60.1396 ms
[07:25:36 INF] HTTP GET /api/v1/entity/schema responded 200 in 119.0204 ms
[07:25:37 INF] HTTP GET /api/v1/entityinfo responded 200 in 1057.8851 ms
[07:25:37 INF] HTTP GET /api/account/user responded 200 in 1800.1078 ms
[07:25:37 INF] HTTP GET /api/integration/connector/all responded 200 in 3.4172 ms
[07:25:37 INF] HTTP GET /api/configuration/providers?excludeTypes=DataSource,Connector,Enricher responded 200 in 37.4344 ms
[07:25:37 INF] HTTP GET /api/configuration/inactiveproviders?excludeTypes=DataSource,Connector,Enricher responded 200 in 31.8702 ms
[07:25:37 INF] HTTP GET /api/v1/configuration/unapprovedproviders?excludeTypes=DataSource,Connector,Enricher responded 200 in 31.7857 ms
[07:25:37 INF] HTTP GET /api/organization responded 200 in 1.0480 ms
[07:25:37 INF] HTTP GET /api/organization/securityfilter/b5bb3c97-69a6-48f5-9ab5-53104b1b0285 responded 200 in 5.1743 ms
[07:25:37 INF] HTTP GET /api/vocabs responded 200 in 23.7856 ms
[07:25:37 INF] HTTP GET /api/vocabs/keys responded 200 in 31.8462 ms
[07:25:37 INF] HTTP GET /api/gdpr/entitytypes?includesShadowEntities=false responded 200 in 98.2019 ms
[07:25:37 INF] HTTP GET /api/account/accounts responded 200 in 198.8829 ms
[07:25:37 INF] HTTP GET /api/integration/connector/all responded 200 in 3.2769 ms
[07:25:37 INF] HTTP GET /api/vocabs responded 200 in 4.3885 ms
[07:25:37 INF] HTTP GET /api/vocabs/keys responded 200 in 9.7770 ms
[07:25:38 INF] HTTP POST /api/graphql responded 200 in 782.8055 ms
[07:25:55 INF] HTTP GET /health/readiness responded 200 in 0.4290 ms
[07:26:15 INF] HTTP GET /health/readiness responded 200 in 0.4669 ms
[07:26:35 INF] HTTP GET /health/readiness responded 200 in 0.4785 ms
[07:26:55 INF] HTTP GET /health/readiness responded 200 in 0.5347 ms
[07:27:15 INF] HTTP GET /health/readiness responded 200 in 0.4447 ms
```

looks good 👍