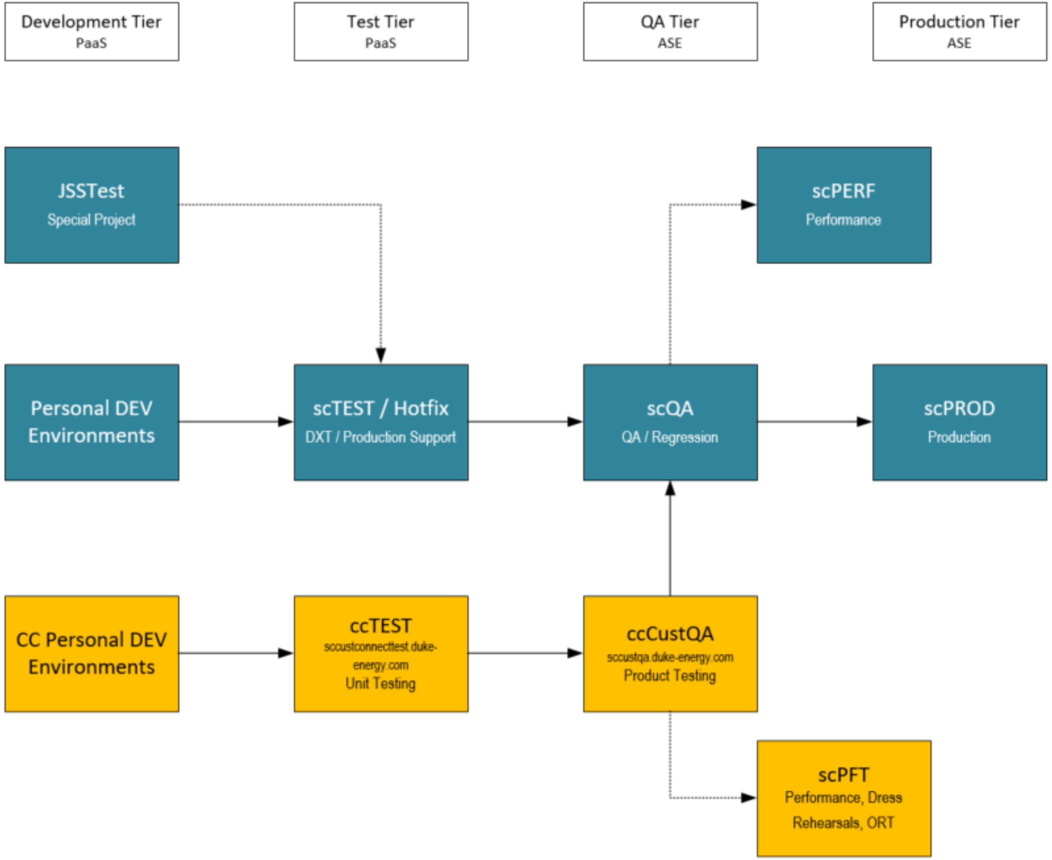
DXT Environments for Sitecore

Last Update: 2022 Post-Public JSS Implementation

Environment Mapping



Development Tier
PaaS

Test Tier
PaaS

QA Tier
ASE

Production Tier
ASE

JSSTest
Special Project

scPERF
Performance

Personal DEV Environments

scTEST / Hotfix
DXT / Production Support

scQA
QA / Regression

scPROD
Production

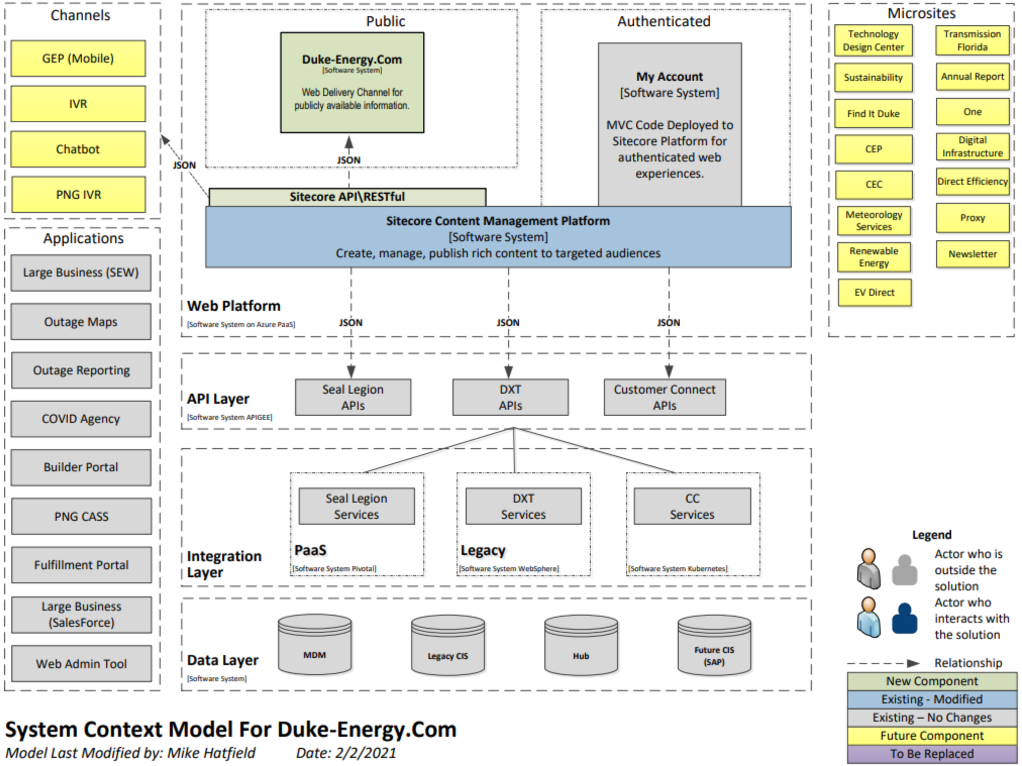
CC Personal DEV Environments

ccTEST
sccustconnecttest.duke-energy.com
Unit Testing

ccCustQA
sccustqa.duke-energy.com
Product Testing

scPFT
Performance, Dress Rehearsals, ORT

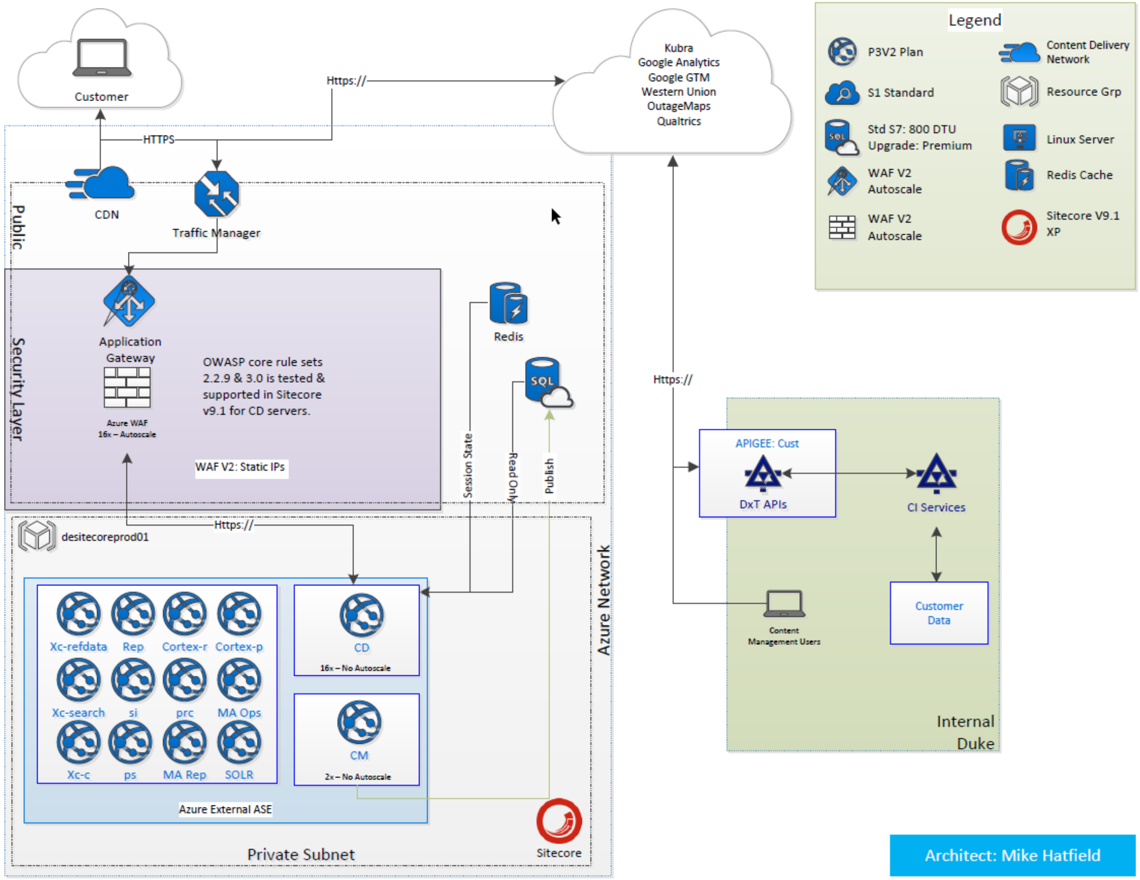
System Context Diagram


Channels
GEP (Mobile)
IVR
Chatbot
PNG IVR
Applications
Large Business (SEW)
Outage Maps
Outage Reporting
COVID Agency
Builder Portal
PNG CASS
Fulfillment Portal
Large Business (SalesForce)
Web Admin Tool
Public
Duke-Energy.Com
[Software System]
Web Delivery Channel for publicly available information.
JSON
JSON
Sitecore API\RESTful
Authenticated
My Account
[Software System]
MVC Code Deployed to Sitecore Platform for authenticated web experiences.
Sitecore Content Management Platform
[Software System]
Create, manage, publish rich content to targeted audiences
Web Platform
[Software System on Azure PaaS]
JSON
JSON
JSON
API Layer
[Software System APIGEE]
Seal Legion APIs
DXT APIs
Customer Connect APIs
Integration Layer
Seal Legion Services
PaaS
[Software System Pivotal]
DXT Services
Legacy
[Software System WebSphere]
CC Services
[Software System Kubernetes]
Data Layer
[Software System]
MDM
Legacy CIS
Hub
Future CIS (SAP)
Microsites
Technology Design Center
Transmission Florida
Sustainability
Annual Report
Find It Duke
One
CEP
Digital Infrastructure
CEC
Direct Efficiency
Meteorology Services
Proxy
Renewable Energy
Newsletter
EV Direct
Legend
Actor who is outside the solution
Actor who interacts with the solution
Relationship
New Component
Existing - Modified
Existing – No Changes
Future Component
To Be Replaced

System Context Model For Duke-Energy.Com

Model Last Modified by: Mike Hatfield *Date: 2/2/2021*

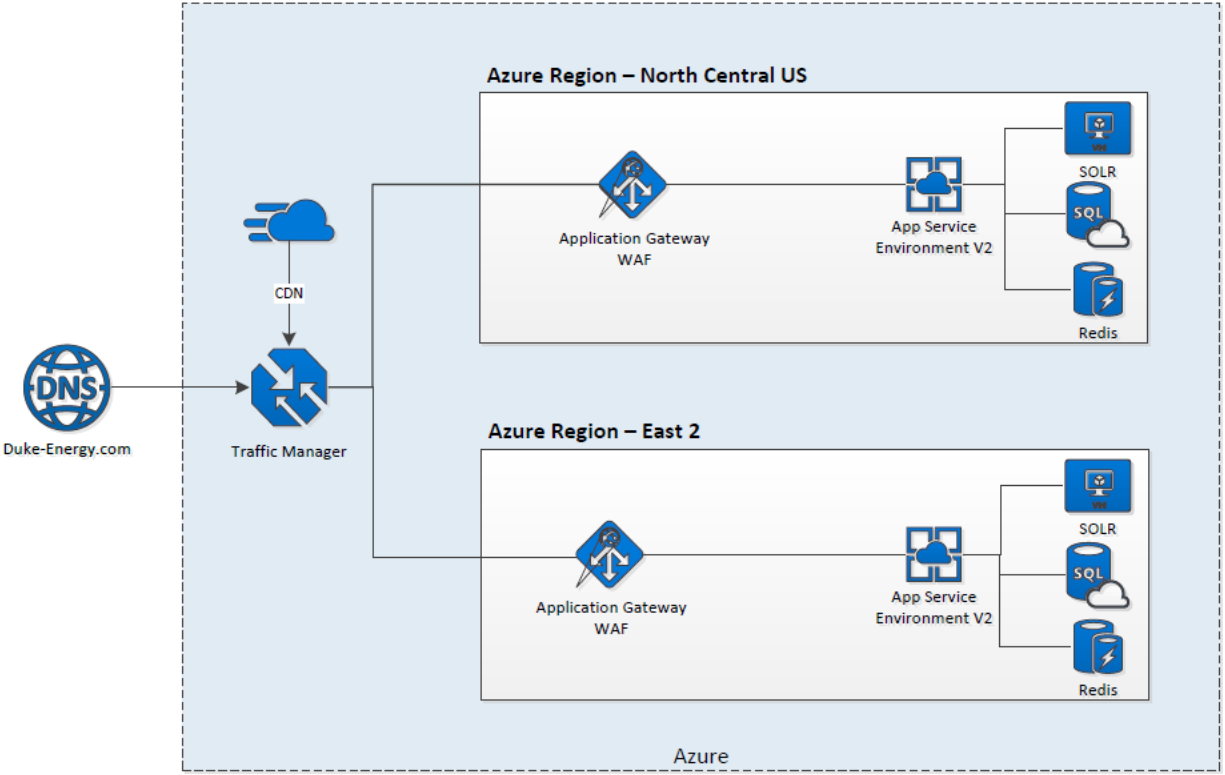
Production Azure ASE


Customer
Https://
Kubra
Google Analytics
Google GTM
Western Union
OutageMaps
Qualtrics
HTTPS
CDN
Traffic Manager
Public
Security Layer
Application Gateway
Azure WAF
16x – Autoscale
OWASP core rule sets 2.2.9 & 3.0 is tested & supported in Sitecore v9.1 for CD servers.
WAF V2: Static IPs
Redis
SQL
Session State
Read Only
Publish
Https://
desitecoreprod01
Xc-refdata
Rep
Cortex-r
Cortex-p
Xc-search
si
prc
MA Ops
Xc-c
ps
MA Rep
SOLR
CD
16x – No Autoscale
CM
2x – No Autoscale
Azure External ASE
Private Subnet
Sitecore
Azure Network
Https://
APIGEE: Cust
DxT APIs
CI Services
Content Management Users
Customer Data
Internal
Duke
Legend
P3V2 Plan
S1 Standard
Std S7: 800 DTU
Upgrade: Premium
WAF V2
Autoscale
WAF V2
Autoscale
Content Delivery Network
Resource Grp
Linux Server
Redis Cache
Sitecore V9.1 XP

NOTE:
This is a Cloud View taken before JSS. Node Servers not Shown

Architect: Mike Hatfield

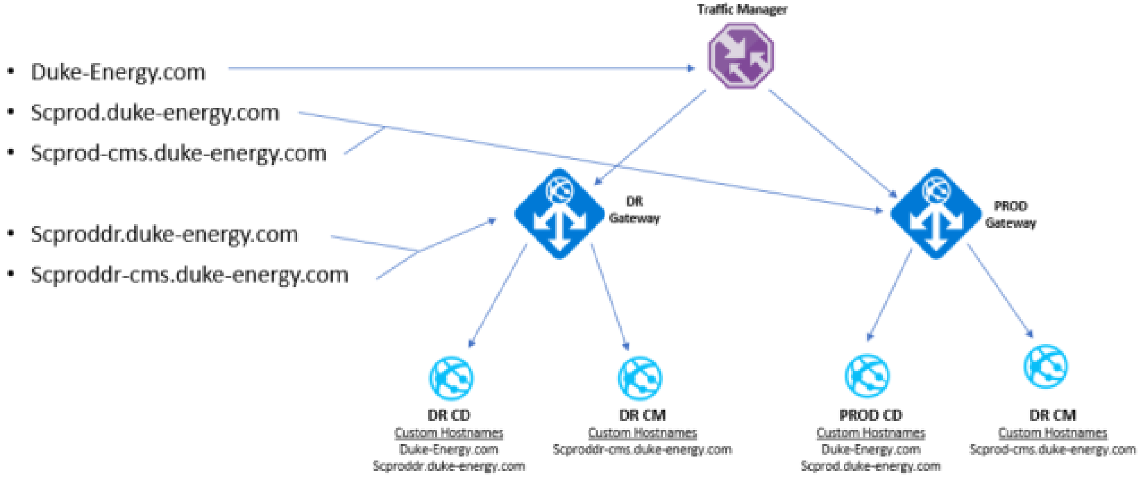
Azure



Azure Region – North Central US
Application Gateway WAF
App Service Environment V2
SOLR
SQL
Redis
CDN
Duke-Energy.com
Traffic Manager
Azure Region – East 2
Application Gateway WAF
App Service Environment V2
SOLR
SQL
Redis
Azure

DNS Routing

Sitecore PROD DNS Routing



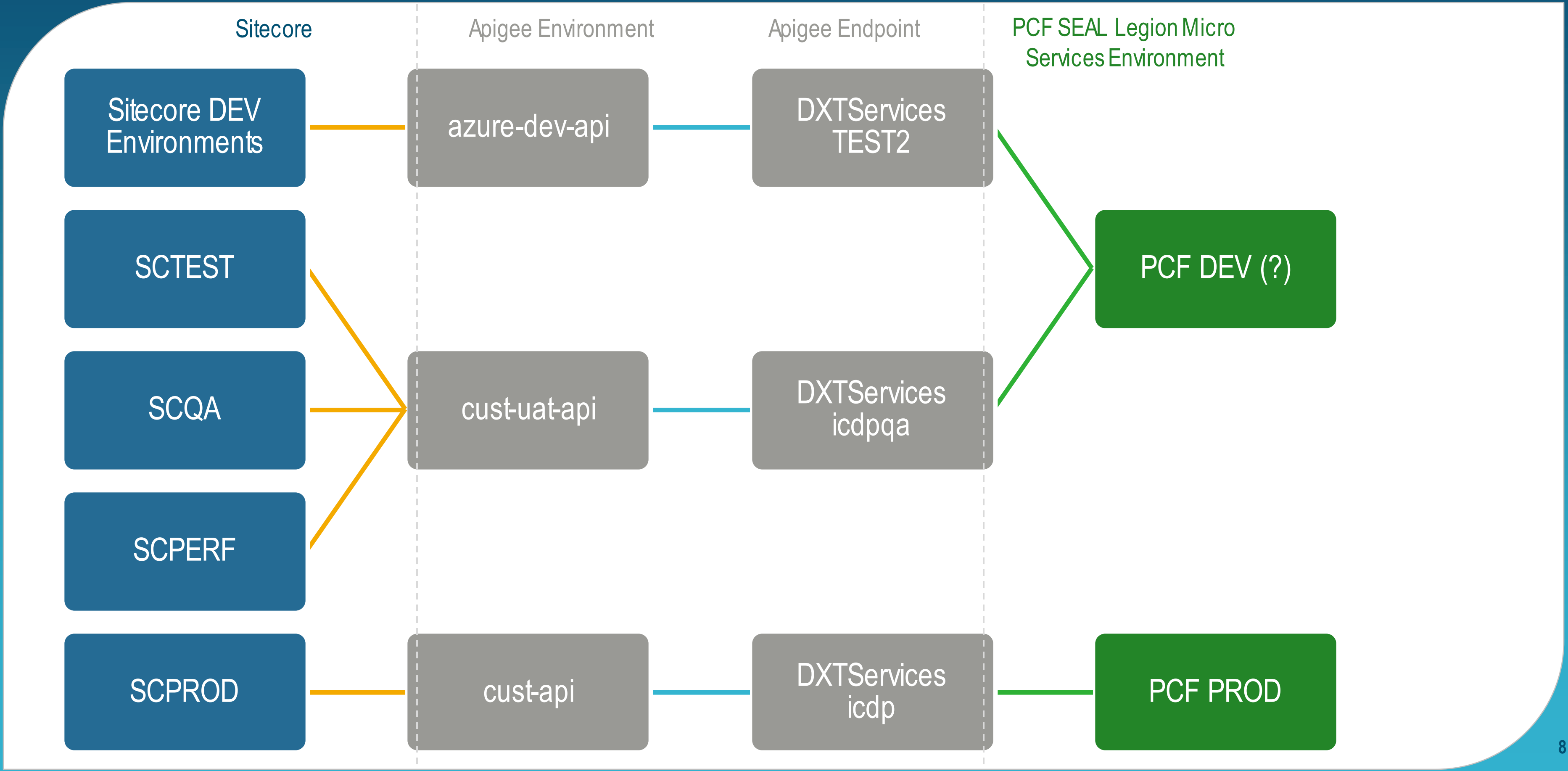
- Duke-Energy.com
- Scprod.duke-energy.com
- Scprod-cms.duke-energy.com
- Scproddr.duke-energy.com
- Scproddr-cms.duke-energy.com
Traffic Manager
DR Gateway
PROD Gateway
DR CD
Custom Hostnames
Duke-Energy.com
Scproddr.duke-energy.com
DR CM
Custom Hostnames
Scproddr-cms.duke-energy.com
PROD CD
Custom Hostnames
Duke-Energy.com
Scprod.duke-energy.com
DR CM
Custom Hostnames
Scprod-cms.duke-energy.com

NOTE:
This is a Cloud View taken before JSS. Node Servers not Shown

Sitecore to CI Mapping (Defaults)

PROD	QA	Performance Testing	Production Support TEST	CC TEST	CC QA	CC PERF
Sitecore SCPROD	Sitecore SCQA	Sitecore SCPFT	Sitecore SCTEST	Sitecore CCTEST	Sitecore CCQA	Sitecore SCPFT
Apigee PROD	Apigee cust-uat	Apigee cust-uat	Apigee cust-uat	Apigee cust-pilot (?)	Apigee cust-pilot (?)	Apigee cust-pilot (?)
Legacy CI PROD	Legacy CI cdptest3	Legacy CI cdptest3	Legacy CI cdptest3	Legacy CI custconnect1	Legacy CI custconnect1 ?	Legacy CI custconnect1?
SAP PROD	SAP Q Region	SAP Q Region	SAP Q Region	SAP ?	SAP ?	SAP ?

Sitecore (9.1) to Apigee to PCF



Sitecore

Apigee Environment

Apigee Endpoint

PCF SEAL Legion Micro Services Environment

Sitecore DEV Environments

SCTEST

SCQA

SCPERF

SCPROD

azure-dev-api

cust-uat-api

cust-api

DXTServices TEST2

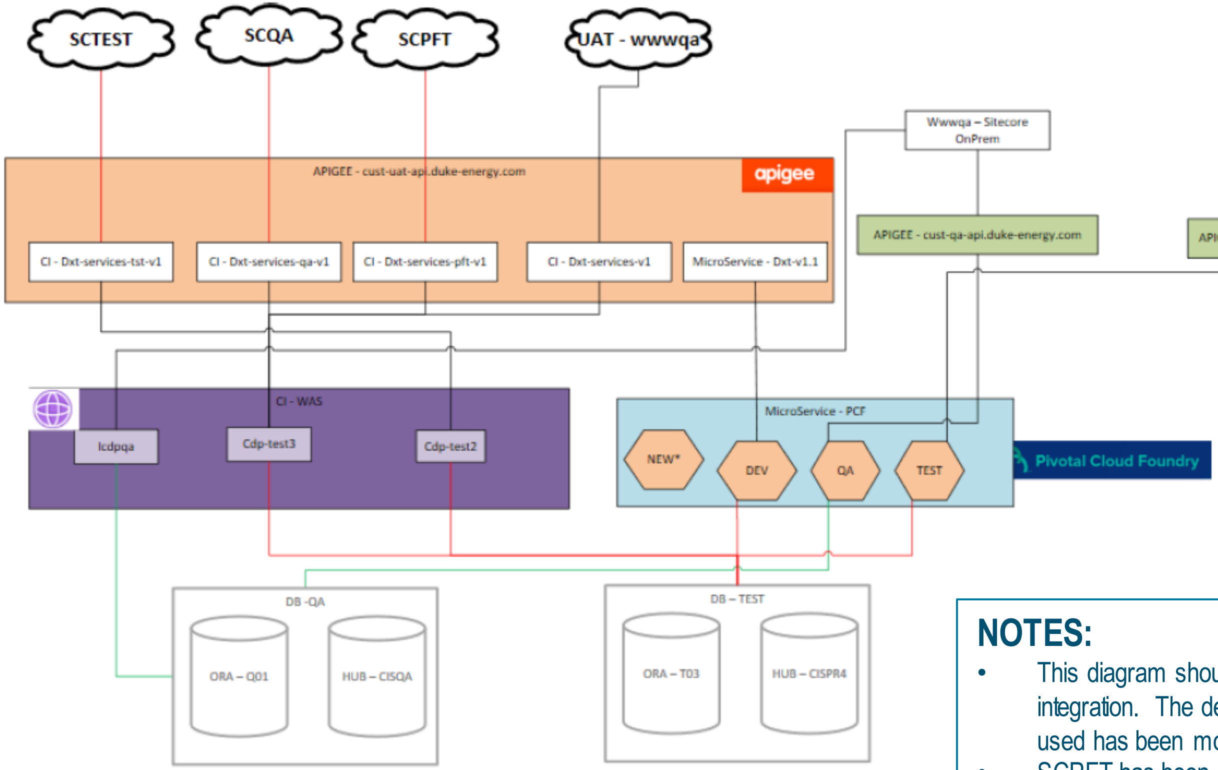
DXTServices icdpqa

DXTServices icdp

PCF DEV (?)

PCF PROD

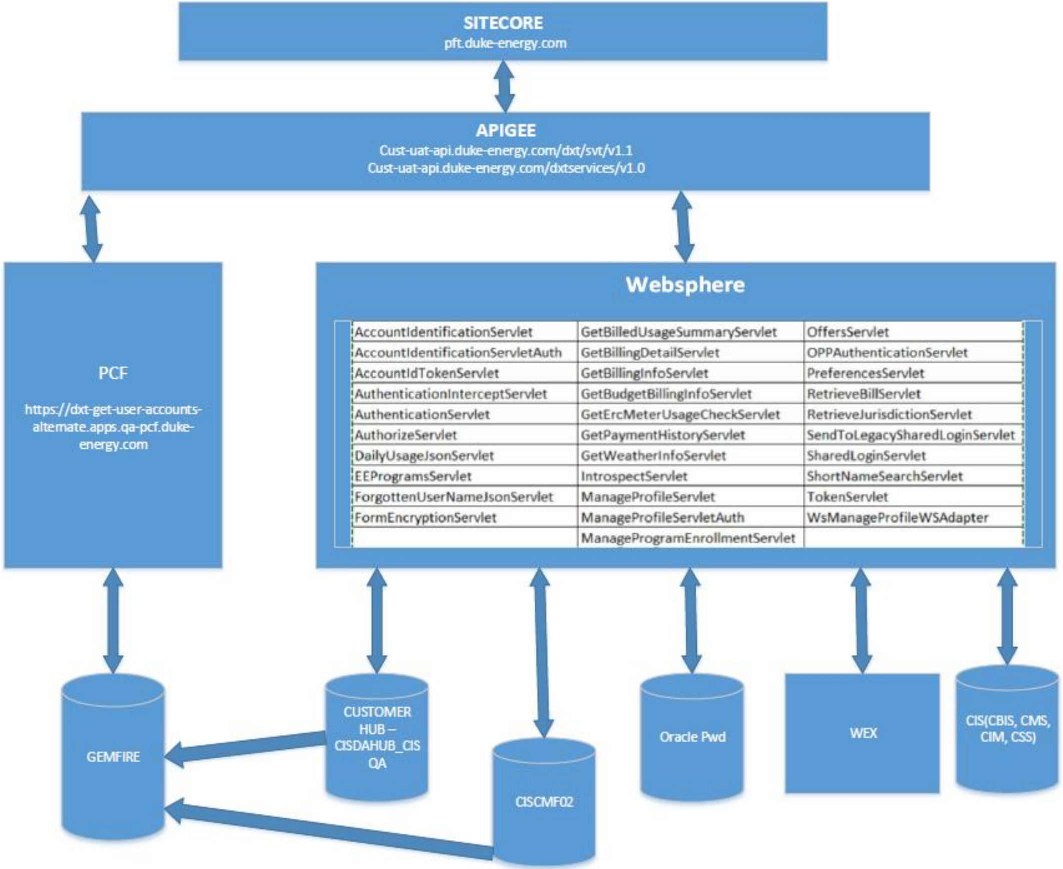
Legacy CI Integration


SCTEST
SCQA
SCPFT
UAT - wwwqa
Wwwqa – Sitecore OnPrem
APIGEE - cust-uat-api.duke-energy.com
apigee
CI - Dxt-services-tst-v1
CI - Dxt-services-qa-v1
CI - Dxt-services-pft-v1
CI - Dxt-services-v1
MicroService - Dxt-v1.1
APIGEE - cust-qa-api.duke-energy.com
APIGEE – cust-test-api.duke-energy.com
CI - WAS
Icdpqa
Cdp-test3
Cdp-test2
MicroService - PCF
NEW*
DEV
QA
TEST
Pivotal Cloud Foundry
DB -QA
ORA – Q01
HUB – CISQA
DB – TEST
ORA – T03
HUB – CISPR4

NOTES:

- This diagram should only be used for the conceptual integration. The details of which backend is being used has been modified due to Customer Connect.
- SCPFT has been replaced by SCPERF in production support environments

DXT Servlets

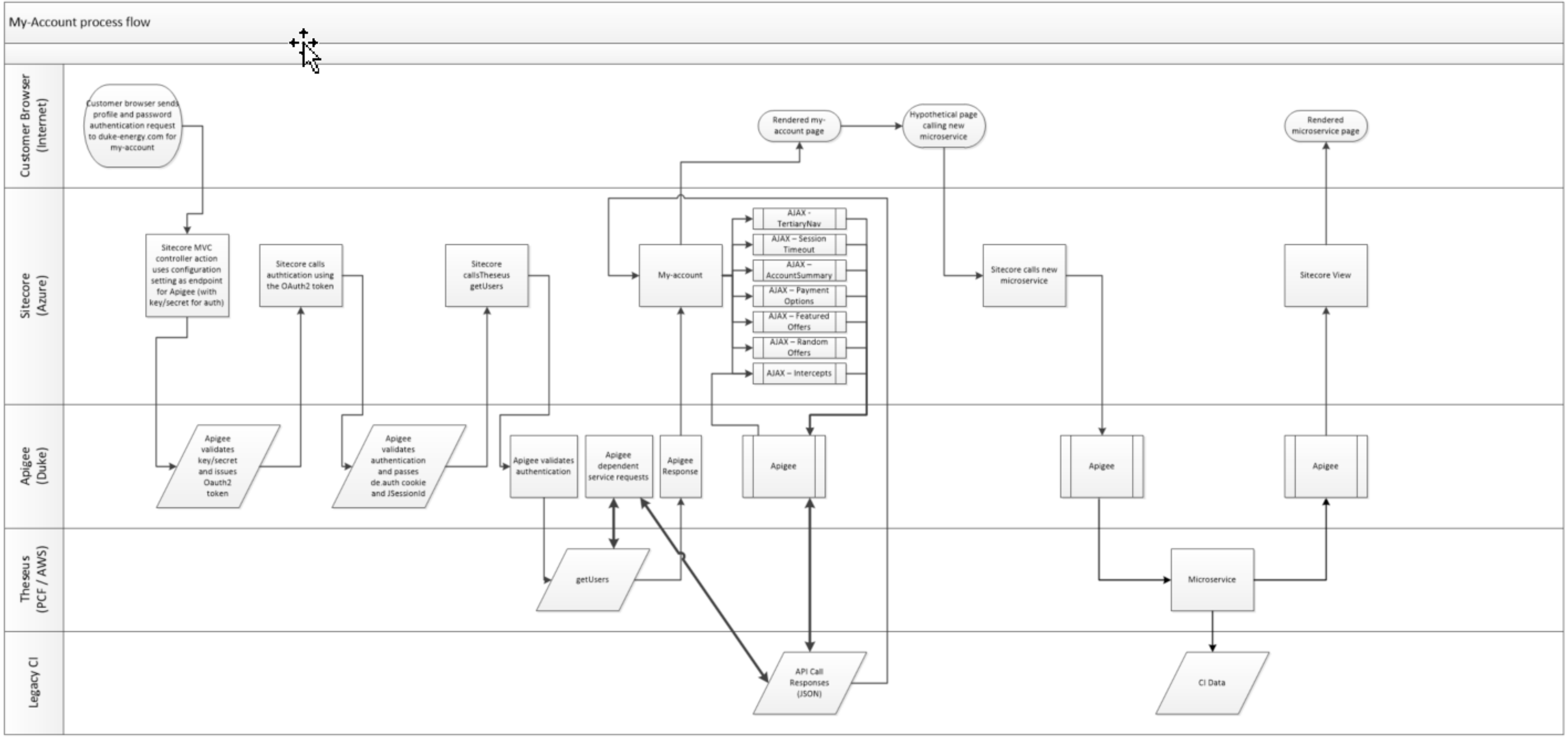

SITECORE
pft.duke-energy.com
APIGEE
Cust-uat-api.duke-energy.com/dxt/svt/v1.1
Cust-uat-api.duke-energy.com/dxtservices/v1.0
PCF
https://dxt-get-user-accounts-alternate.apps.qa-pcf.duke-energy.com
Websphere
GEMFIRE
CUSTOMER HUB – CISDAHUB_CIS QA
CISCMF02
Oracle Pwd
WEX
CIS(CBIS, CMS, CIM, CSS)

- AccountIdentificationServlet
- AccountIdentificationServletAuth
- AccountIdTokenServlet
- AuthenticationInterceptServlet
- AuthenticationServlet
- AuthorizeServlet
- DailyUsageJsonServlet
- EEProgramsServlet
- ForgottenUserNameJsonServlet
- FormEncryptionServlet
- GetBilledUsageSummaryServlet
- GetBillingDetailServlet
- GetBillingInfoServlet
- GetBudgetBillingInfoServlet
- GetErcMeterUsageCheckServlet
- GetPaymentHistoryServlet
- GetWeatherInfoServlet
- IntrospectServlet
- ManageProfileServlet
- ManageProfileServletAuth
- ManageProgramEnrollmentServlet
- OffersServlet
- OPPAuthenticationServlet
- PreferencesServlet
- RetrieveBillServlet
- RetrieveJurisdictionServlet
- SendToLegacySharedLoginServlet
- SharedLoginServlet
- ShortNameSearchServlet
- TokenServlet
- WsManageProfileWSAdapter

NOTES:

- This diagram should only be used for the conceptual integration. The URLs/DBs being used have been modified due to Customer Connect.
- SCPFT has been replaced by SCPERF in production support environments

My Account Process Flow



My-Account process flow

Customer Browser (Internet)

Customer browser sends profile and password authentication request to duke-energy.com for my-account

Rendered my-account page

Hypothetical page calling new microservice

Rendered microservice page

Sitecore (Azure)

Sitecore MVC controller action uses configuration setting as endpoint for Apigee (with key/secret for auth)

Sitecore calls authtication using the OAuth2 token

Sitecore callsTheseus getUsers

My-account

AJAX - TertiaryNav

AJAX – Session Timeout

AJAX – AccountSummary

AJAX – Payment Options

AJAX – Featured Offers

AJAX – Random Offers

AJAX – Intercepts

Sitecore calls new microservice

Sitecore View

Apigee (Duke)

Apigee validates key/secret and issues Oauth2 token

Apigee validates authentication and passes de.auth cookie and JSessionId

Apigee validates authentication

Apigee dependent service requests

Apigee Response

Apigee

Apigee

Apigee

Theseus (PCF / AWS)

getUsers

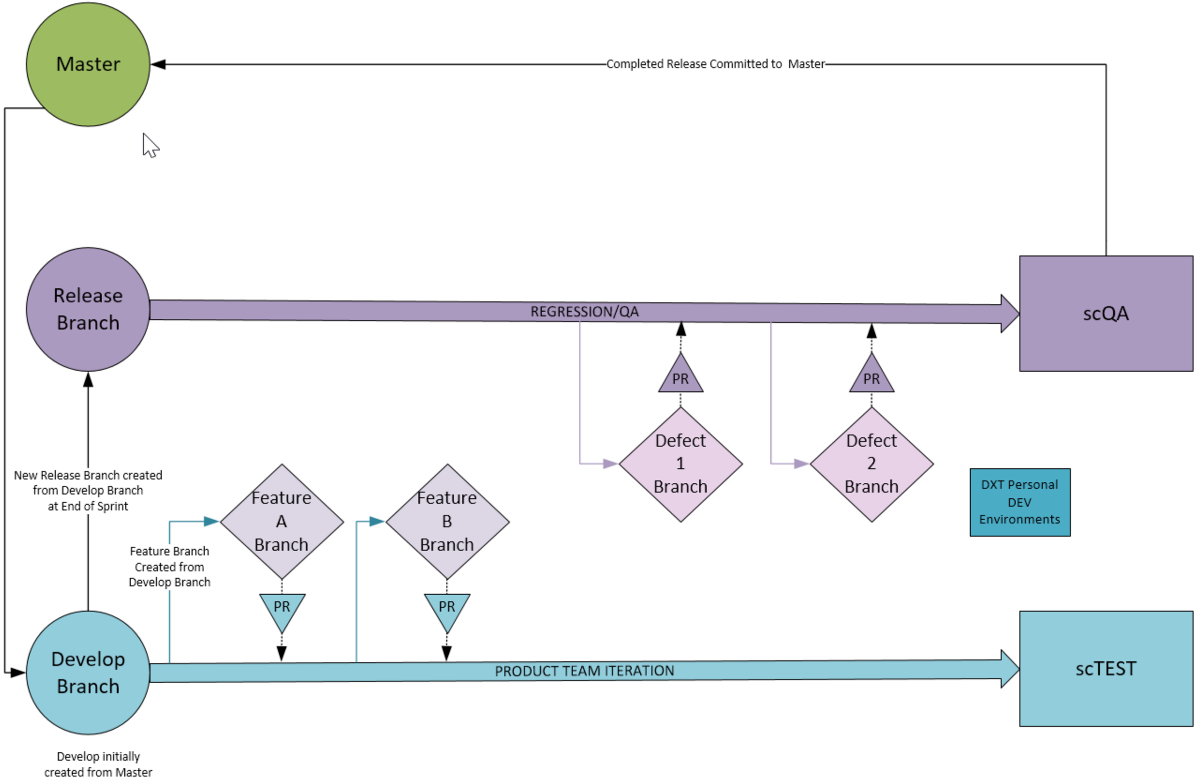
Microservice

Legacy CI

API Call Responses (JSON)

CI Data

Source Control Strategy for Production Path Environments

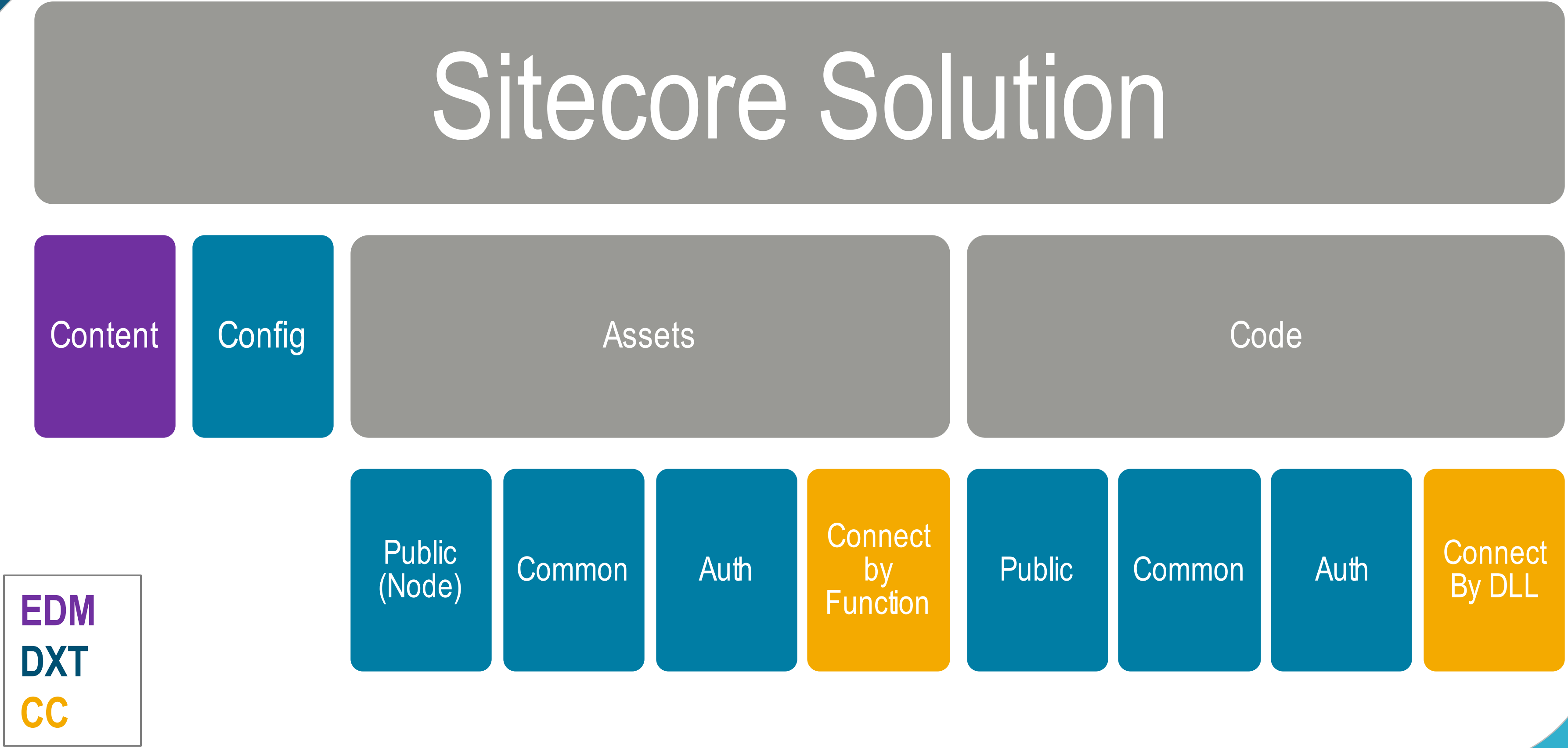

Master
Completed Release Committed to Master
Release Branch
REGRESSION/QA
scQA
PR
PR
Defect 1 Branch
Defect 2 Branch
DXT Personal DEV Environments
New Release Branch created from Develop Branch at End of Sprint
Feature A Branch
Feature B Branch
Feature Branch Created from Develop Branch
PR
PR
Develop Branch
PRODUCT TEAM ITERATION
scTEST
Develop initially created from Master

References

- DXT Developer Channel
- DXT Technical Documentation
- DXT Runway
- Electron Design System
- Monitoring
- SDEs
- Legacy CI Services Wiki
- Customer Connect Admin Tool
- Customer Connect Integration Diagram
- Additional Customer Connect Integration Diagram
- Customer Connect Architecture
- Customer Connect WASP

Appendix

Sitecore Solution Ownership



Sitecore Solution

Content

Config

Assets

Code

Public (Node)

Common

Auth

Connect by Function

Public

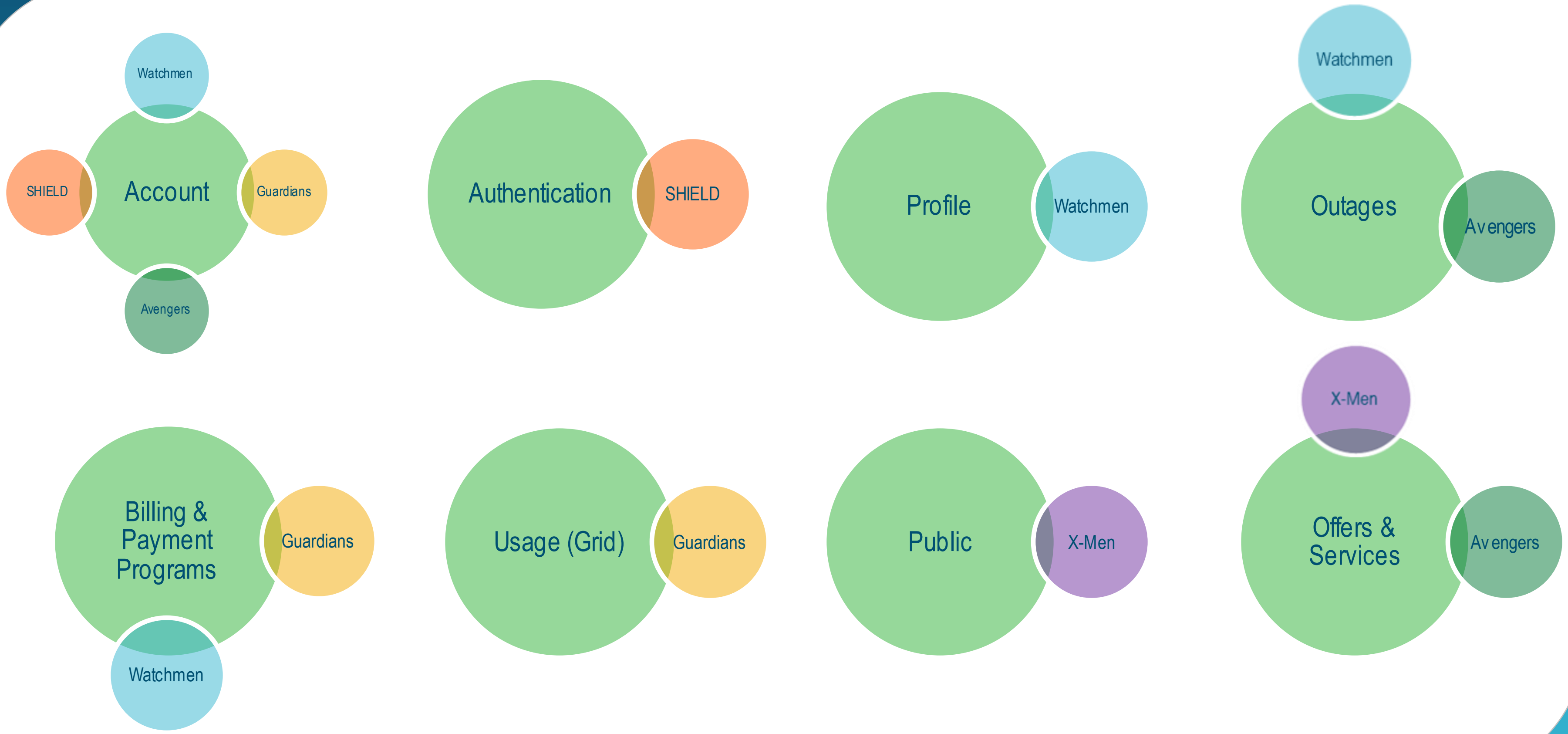
Common

Auth

Connect By DLL

EDM
DXT
CC

Our Solution By Function (aka “The Un-Pop-able Bubbles”)



Account
Watchmen
SHIELD
Guardians
Avengers

Authentication
SHIELD

Profile
Watchmen

Outages
Watchmen
Avengers

Billing & Payment Programs
Guardians
Watchmen

Usage (Grid)
Guardians

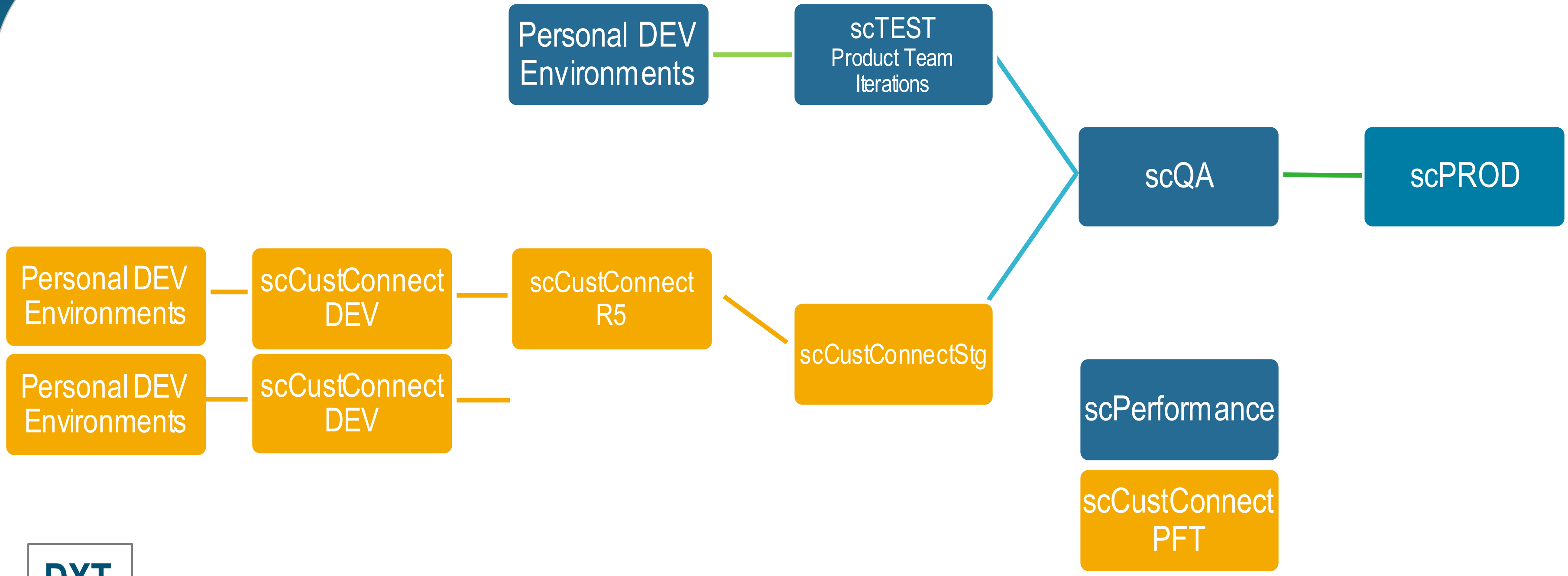
Public
X-Men

Offers & Services
X-Men
Avengers

Historical

Pre/Early-Customer Connect

Sitecore Environment Mapping (9.1)

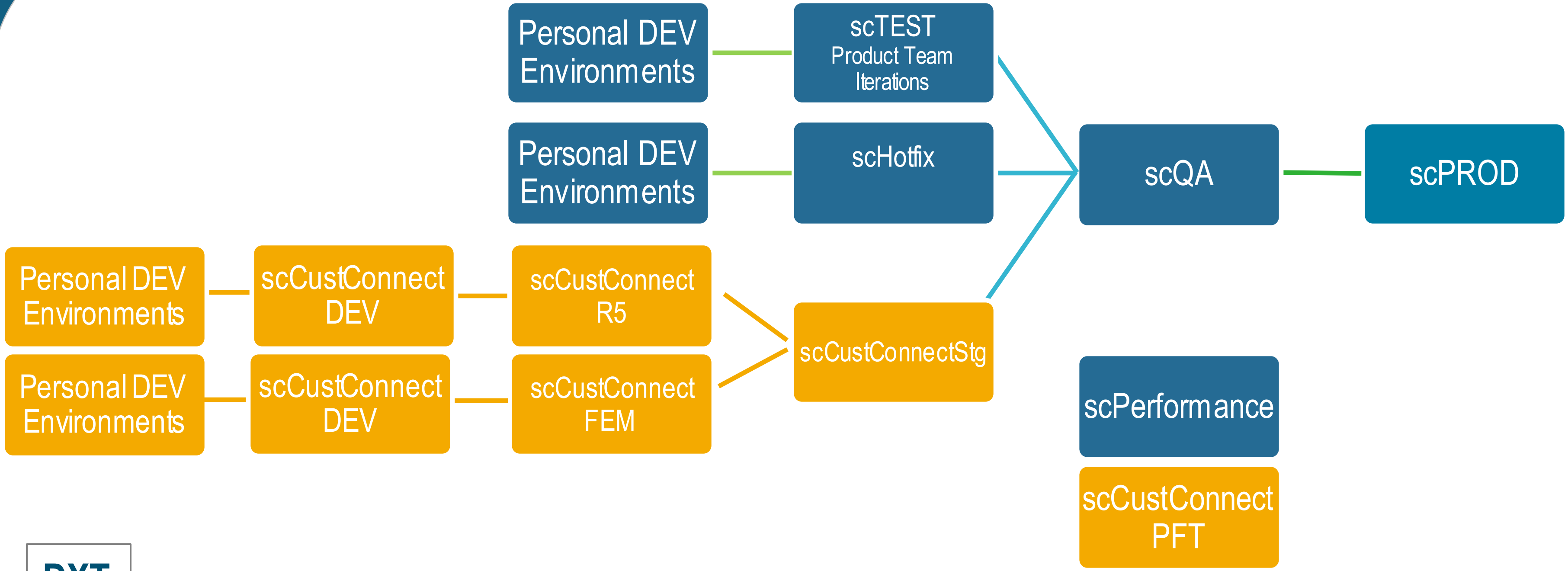

Personal DEV Environments
scTEST
Product Team Iterations
scQA
scPROD
Personal DEV Environments
scCustConnect DEV
scCustConnect R5
scCustConnectStg
Personal DEV Environments
scCustConnect DEV
scPerformance
scCustConnect PFT

DXT

CC

*This diagram only contains environments applicable to DXT & Customer Connect

Sitecore Environment Mapping (9.1)


Personal DEV Environments
scTEST
Product Team Iterations
Personal DEV Environments
scHotfix
scQA
scPROD
Personal DEV Environments
scCustConnect DEV
scCustConnect R5
scCustConnectStg
Personal DEV Environments
scCustConnect DEV
scCustConnect FEM
scPerformance
scCustConnect PFT

DXT
CC

*This diagram only contains environments applicable to DXT & Customer Connect

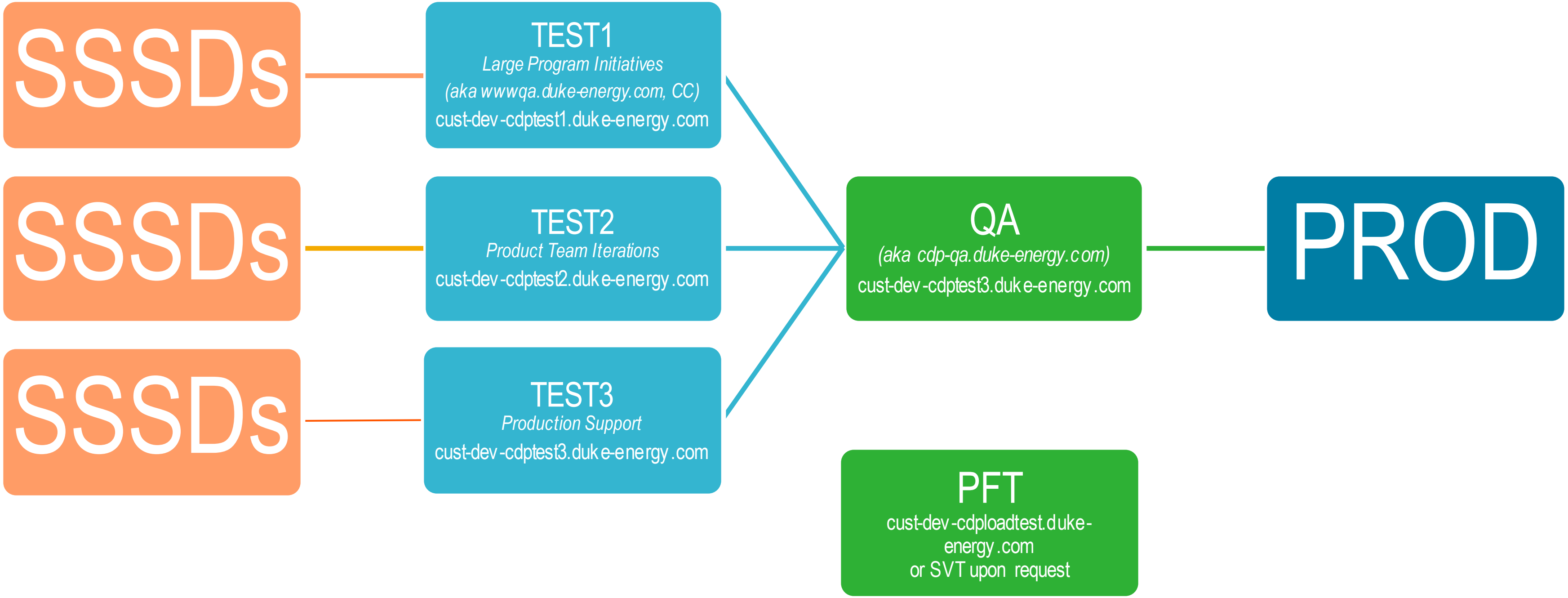
Sitecore 9.1 to CI Default Mapping

PROD	QA	Performance Testing	DXT Iterations	Production Support	Customer UAT
Sitecore scPROD	Sitecore scQA	Sitecore scPFT	Sitecore scTEST	Sitecore scHotfix	Sitecore scUAT
CI PROD	CI cdptest3	CI SVT (Stress Volume Test)	CI cdptest2	CI cdptest3	CI icdpqa

Historical

Sitecore 7.2

7.2 Environment Mapping



SSSDs

SSSDs

SSSDs

TEST1
Large Program Initiatives
(aka wwwqa.duke-energy.com, CC)
cust-dev-cdptest1.duke-energy.com

TEST2
Product Team Iterations
cust-dev-cdptest2.duke-energy.com

TEST3
Production Support
cust-dev-cdptest3.duke-energy.com

QA
(aka cdp-qa.duke-energy.com)
cust-dev-cdptest3.duke-energy.com

PROD

PFT
cust-dev-cdploadtest.duke-energy.com
or SVT upon request

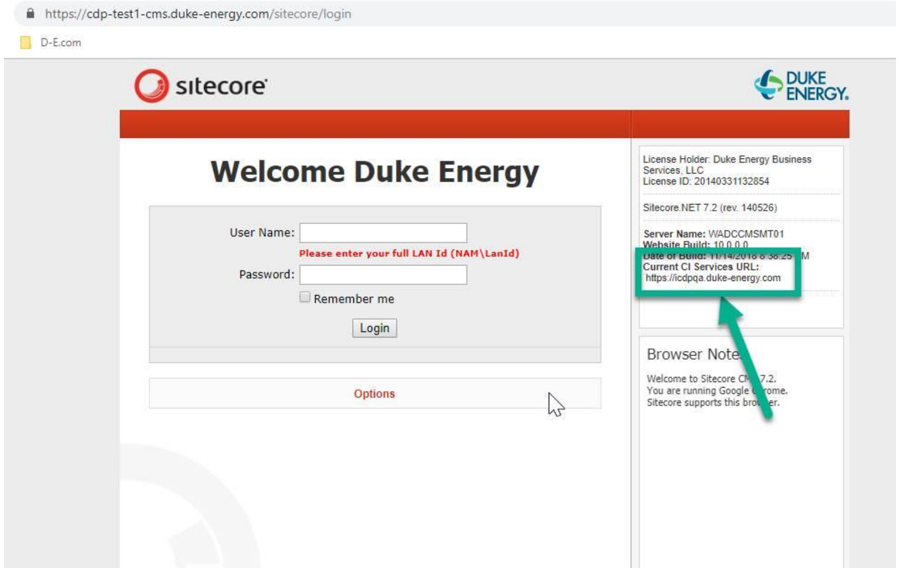
Sitecore to CI Defatult Mapping

PROD	QA	PFT	TEST1*	TEST2	TEST3
Sitecore PROD	Sitecore QA	Sitecore PFT	Sitecore TEST1	Sitecore TEST2	Sitecore TEST3
CI PROD	CI cdptest3	CI cdploadtest (load balanced cdptest3)	CI cdptest1	CI cdptest2	CI cdptest3

*TEST1 is also known as wwwqa by the Customer UAT team

How to Find CI Mapping From Sitecore Environment

1. Go to your Sitecore Environment’s login screen. Example: https://cdp-test1-cms.duke-energy.com/sitecore/login
2. Consult the “Current CI Services URL” on the right column:



https://cdp-test1-cms.duke-energy.com/sitecore/login

D-E.com

Welcome Duke Energy

User Name:

Please enter your full LAN Id (NAM\LanId)

Password:

☐ Remember me

License Holder: Duke Energy Business Services, LLC
License ID: 20140331132854

Sitecore.NET 7.2 (rev. 140526)

Server Name: WADCCMSMT01
Website Build: 10.0.0.0
Date of Build: 11/14/2018 8:38:25 M
Current CI Services URL:
https://icdpqa.duke-energy.com

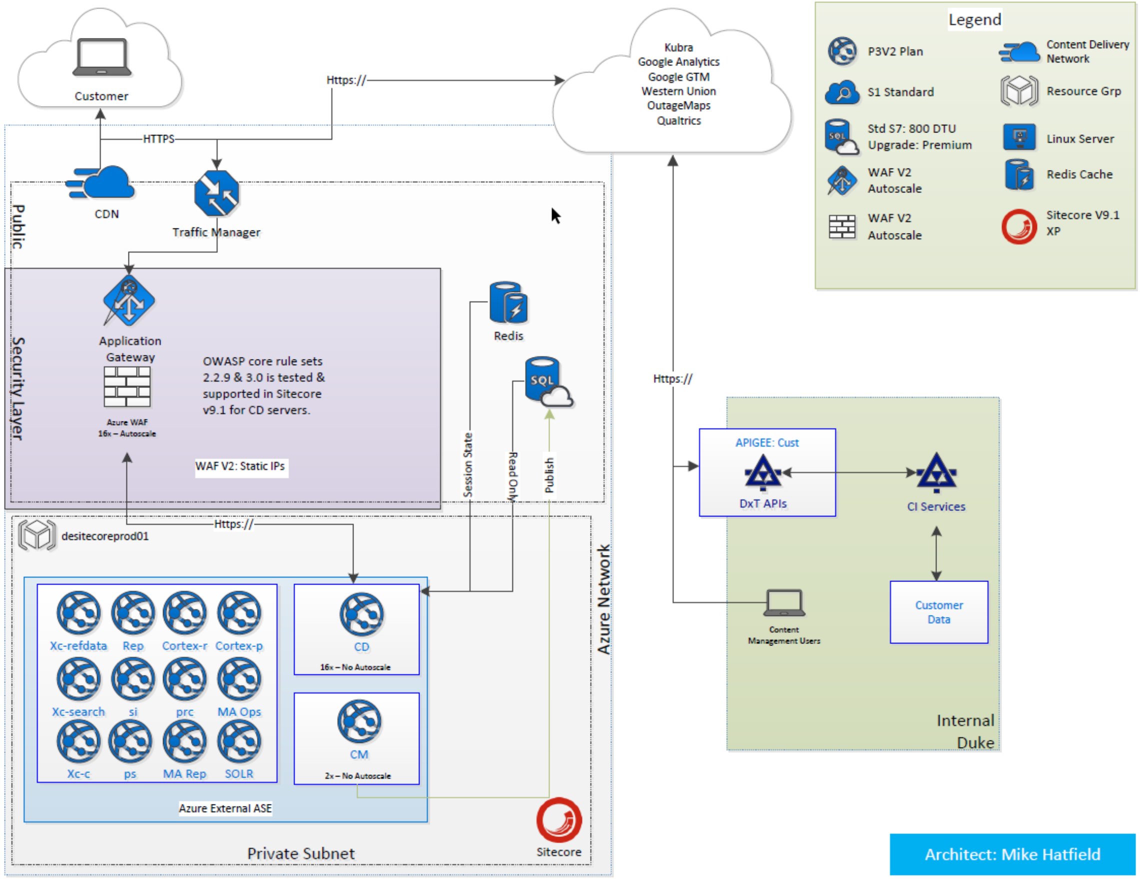
Browser Note

Welcome to Sitecore CM 7.2.
You are running Google Chrome.
Sitecore supports this bro er.

Historical

Pre-JSS

Production Azure ASE


Customer
Https://
HTTPS
Kubra
Google Analytics
Google GTM
Western Union
OutageMaps
Qualtrics
Legend
P3V2 Plan
Content Delivery Network
S1 Standard
Resource Grp
Std S7: 800 DTU
Upgrade: Premium
Linux Server
WAF V2
Autoscale
Redis Cache
WAF V2
Autoscale
Sitecore V9.1
XP
Public
CDN
Traffic Manager
Security Layer
Application
Gateway
Azure WAF
16x – Autoscale
OWASP core rule sets
2.2.9 & 3.0 is tested &
supported in Sitecore
v9.1 for CD servers.
WAF V2: Static IPs
Redis
Session State
Read Only
Publish
Https://
APIGEE: Cust
DxT APIs
CI Services
Https://
desitecoreprod01
Xc-refdata
Rep
Cortex-r
Cortex-p
Xc-search
si
prc
MA Ops
Xc-c
ps
MA Rep
SOLR
CD
16x – No Autoscale
CM
2x – No Autoscale
Azure External ASE
Azure Network
Private Subnet
Sitecore
Content
Management Users
Customer
Data
Internal
Duke

Architect: Mike Hatfield