

EXPERIENCE LEAGUE SKILL BUILDER:

ADOBE
EXPERIENCE MANAGER

TESTING BEST PRACTICES
WITH CLOUD MANAGER

JUSTIN EDELSON | GROUP PRODUCT MANAGER, ADOBE
PATRICK KYNASTON | CUSTOMER SUCCESS ENGINEER MANAGER, ADOBE





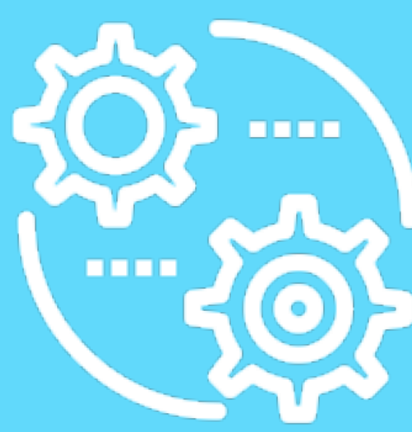
JUSTIN ELEDSON
GROUP PRODUCT
MANAGER, ADOBE



PATRICK KYNASTON
CUSTOMER SUCCESS ENGINEER
MANAGER, ADOBE

CLOUD MANAGER SECOND SKILL BUILDER SERIES

OVERVIEW



TODAY, September 18

Testing Best Practices –
Build Execution, Monitoring,
Audit, and Insights



Wednesday, October 16

Dispatcher Configurations
with Cloud Manager



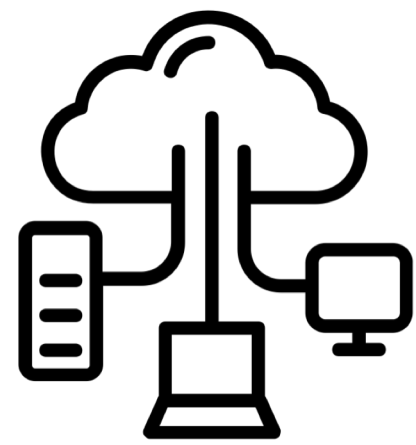
Tuesday, November 13

Creating workflows with
Cloud Manager and Third-
party Tools

ADOBE MANAGED SERVICES: GLOBAL SCALE AND DEEP

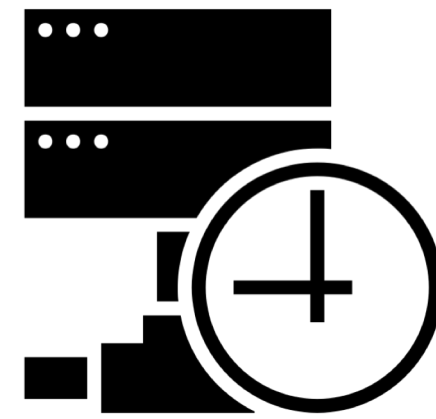


700+
customers globally

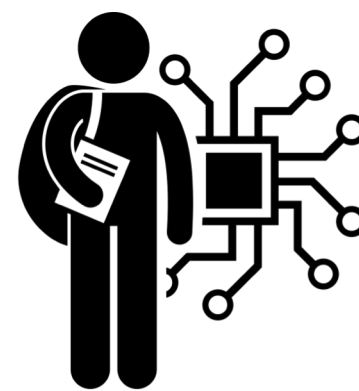


40+
operating regions
on Azure and AWS

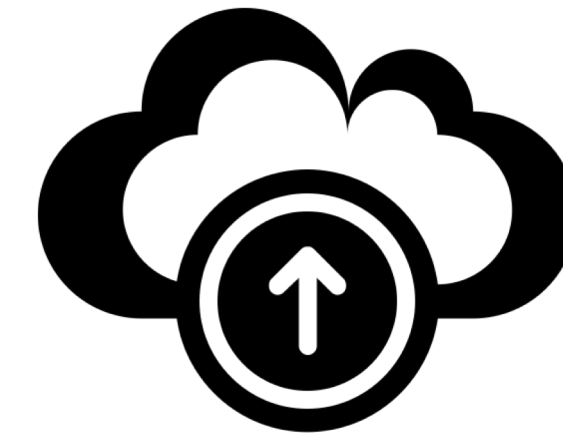
AEM EXPERTISE



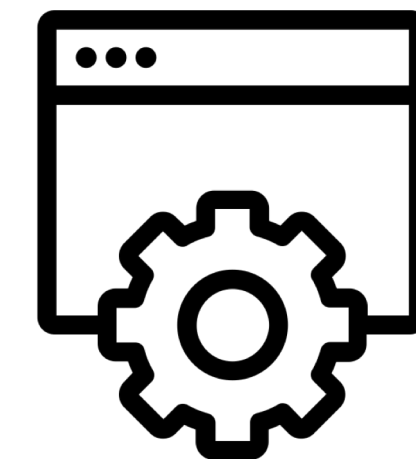
99.97%
average uptime



150+
Customer Success
Engineers, ~4 years AEM



21 days
fast on-premise to
cloud transition



12
Cloud Manager
releases

CLOUD MANAGER FOR ADOBE EXPERIENCE MANAGER



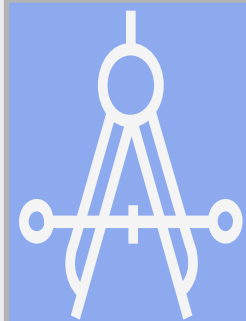
CI/CD Deployment

Speed time to market through frequent deployments



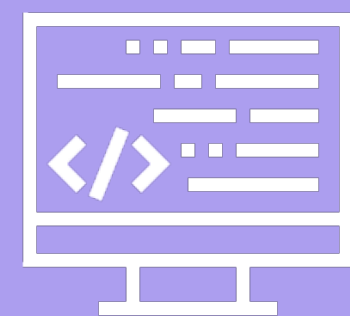
Code Inspection

Minimize disruption when pushing code to production



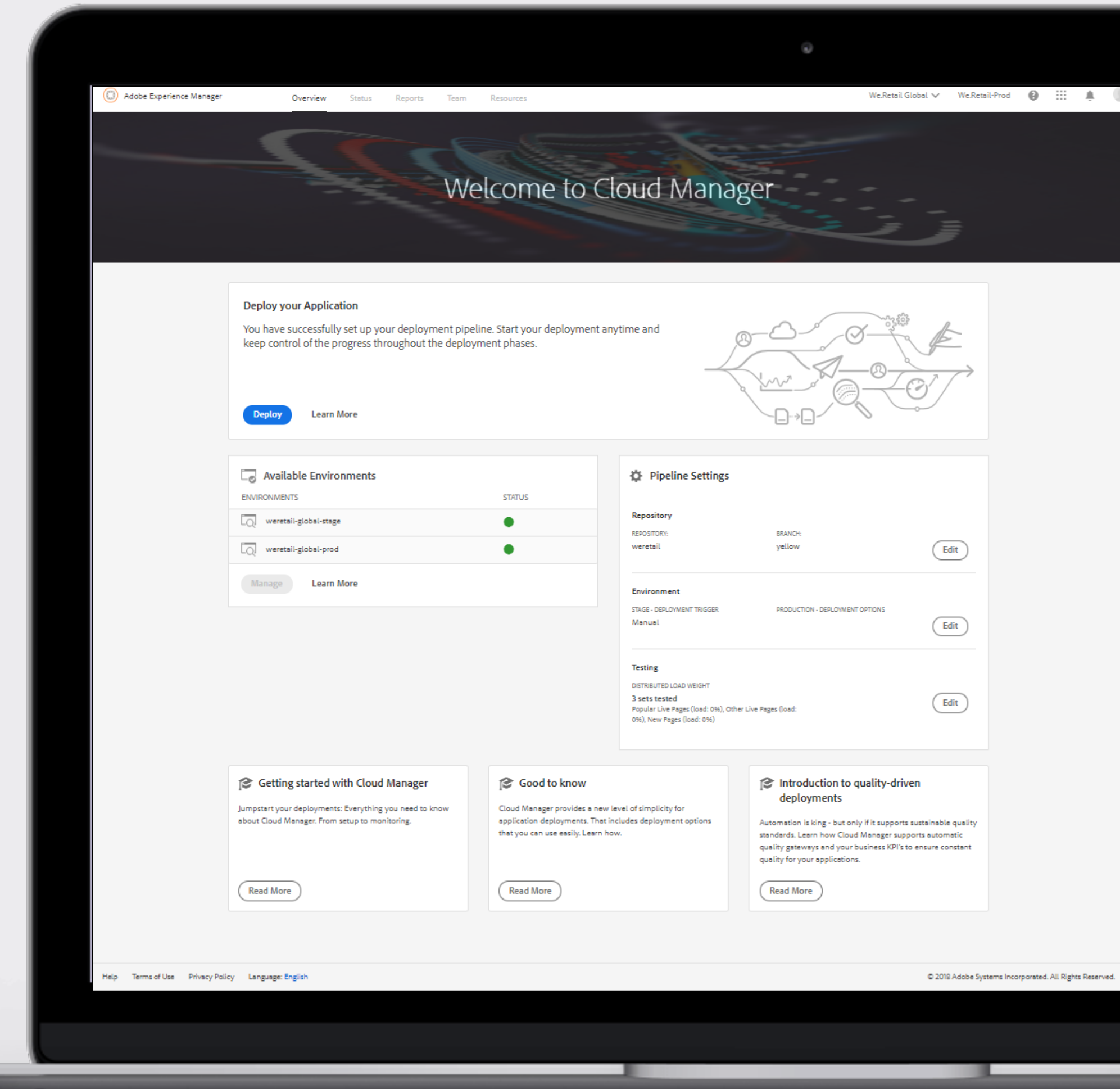
Autoscaling & Transparent Service Delivery

Gain agility & insights required to respond to changing business demands

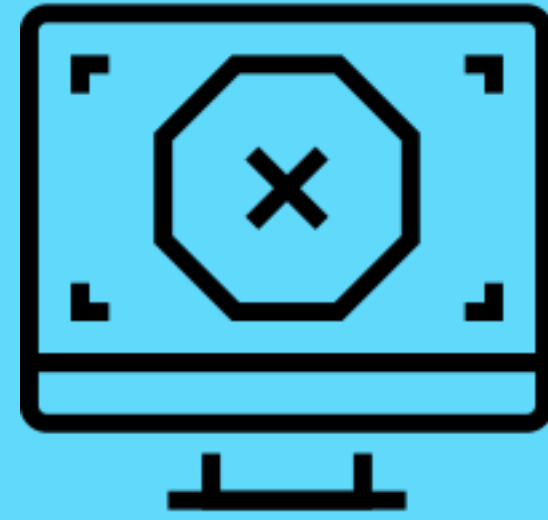


API Connectivity

Complement and integrate existing DevOps processes

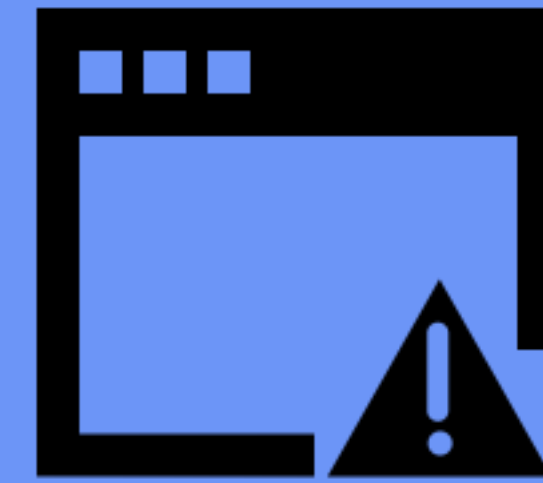


PASSING THE CODE QUALITY GATE



Critical

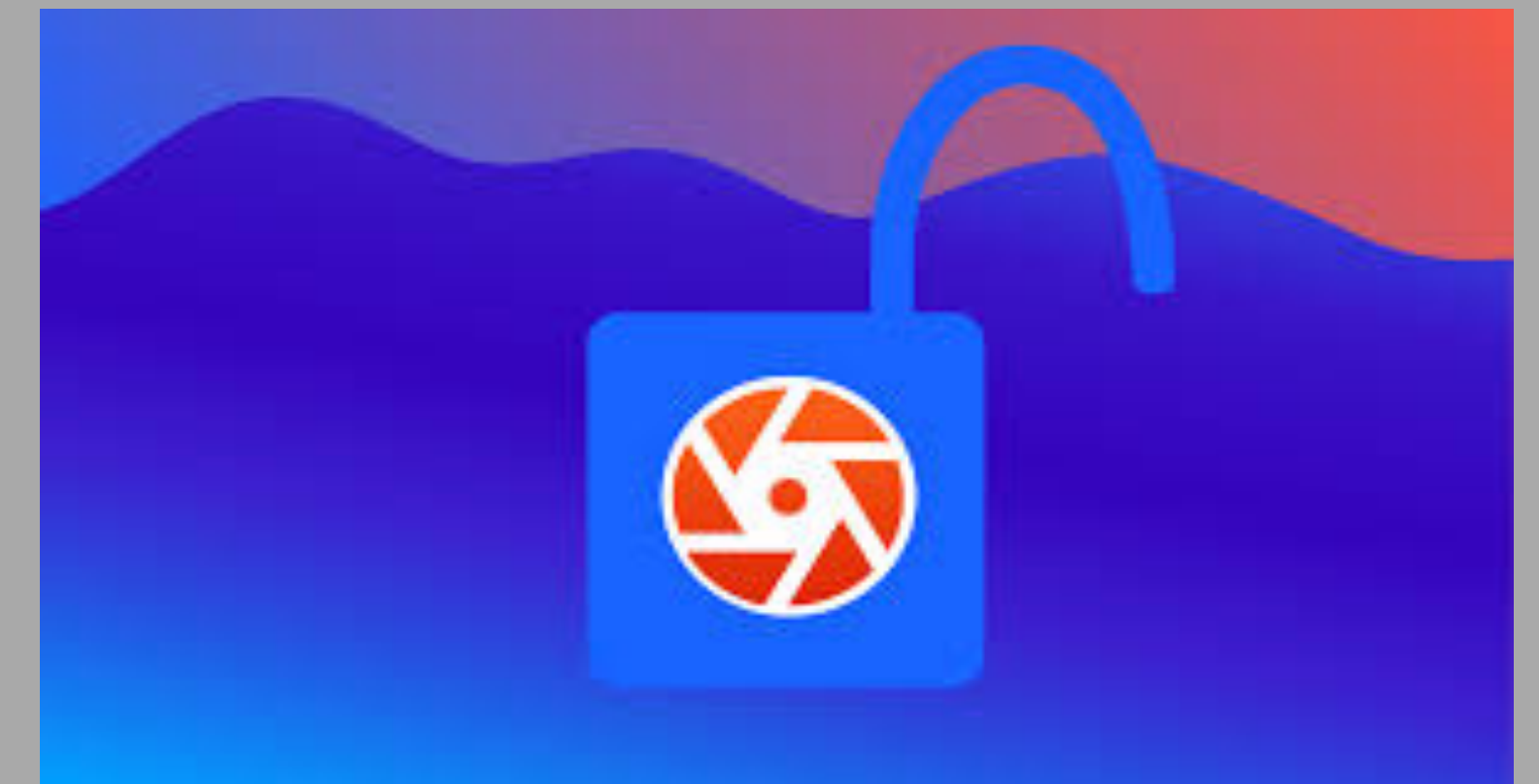
- ✓ Security Rating of B or A



Important

- ✓ Security Rating of A
- ✓ Reliability Rating of A, B, C
- ✓ Maintainability Rating of A
- ✓ Code Coverage more than 50%

CODE QUALITY TECHNOLOGIES



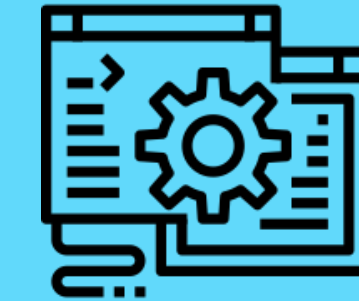
CODE QUALITY ISSUE TYPES & SEVERITIES



Vulnerabilities



Bugs



Code Smells

Blocker

Critical

Major

Minor

Trivial

Decreasing severity

Based on SonarQube definitions, but applied to both SonarQube and OakPAL

KEY CODE QUALITY METRICS



Security Rating:
Measure of vulnerabilities



Reliability Rating:
Measure of bugs



E

At least one Blocker

D

At least one Critical
No Blockers

C

At least one Major
No Critical or Blockers

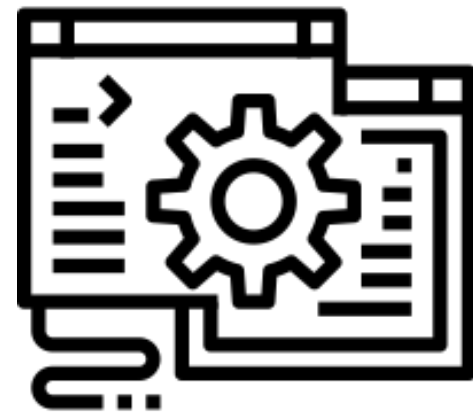
B

At least one Minor
No Other Severities

A

No vulnerabilities

KEY CODE QUALITY METRICS



Maintainability Rating:

Measure of code smells or technical debt based on estimated time to resolve relative to total time to develop the code base



E

Anything over 50%

D

Between 21%-50%

C

Between 11%-20%

B

Between 6%-10%

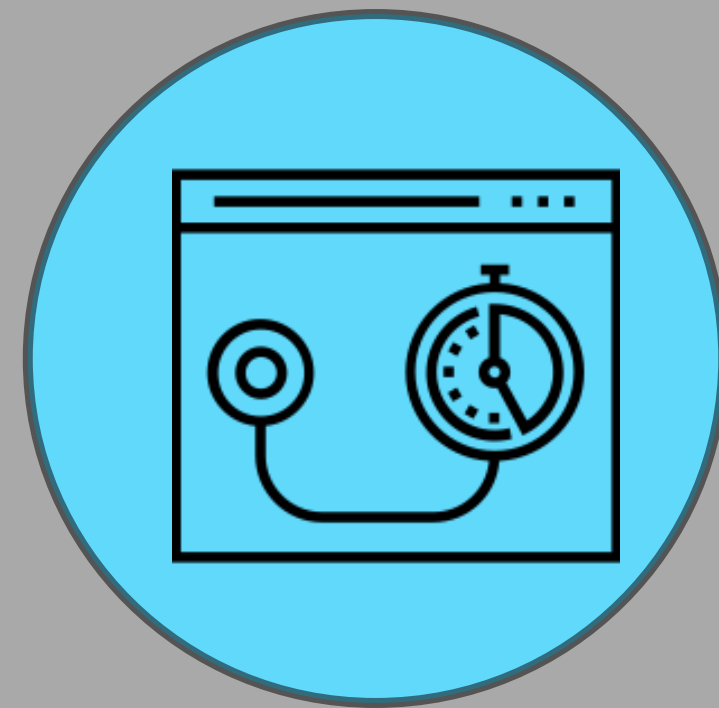
A

Less then or equal to 5%

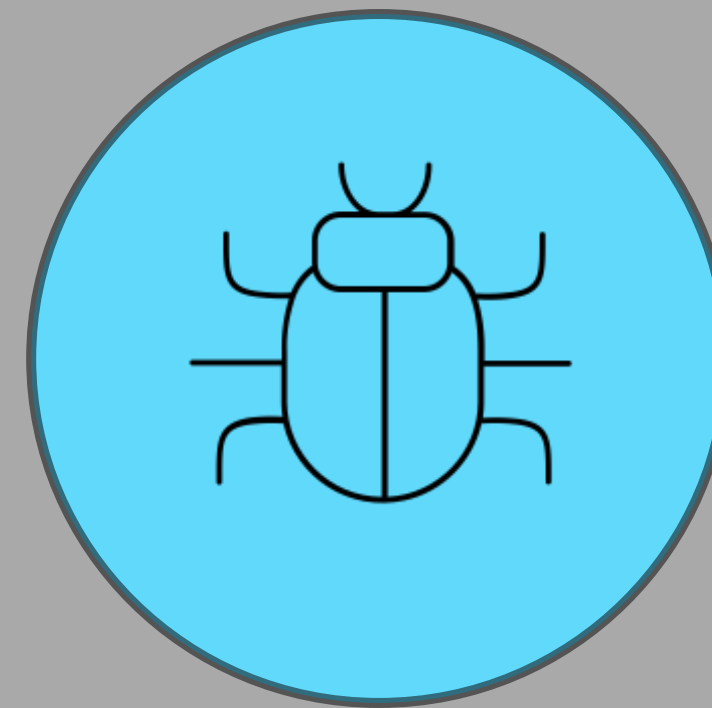
KEY CODE QUALITY METRICS



Coverage
Combination of
Conditional coverage and
line coverage



Skipped Unit Tests

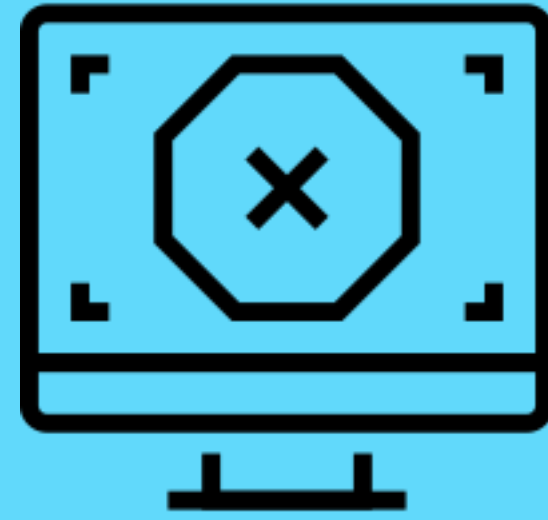


**Total Number of
Issues**



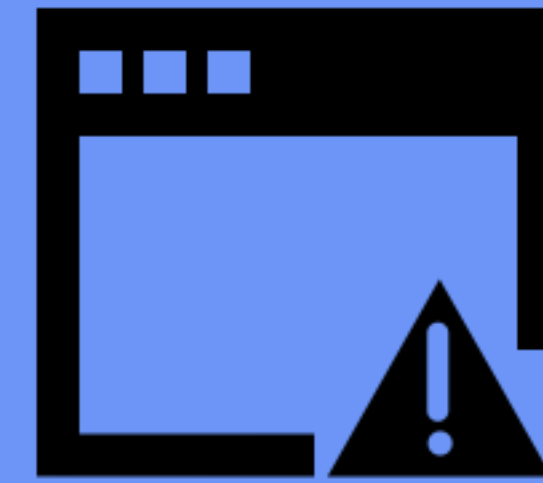
Duplicated Lines
Relative to the total
number of lines

PASSING THE CODE QUALITY GATE - TRANSLATED



Critical

- ✓ No vulnerabilities of "Major", "Critical", or "Blocker" Severity

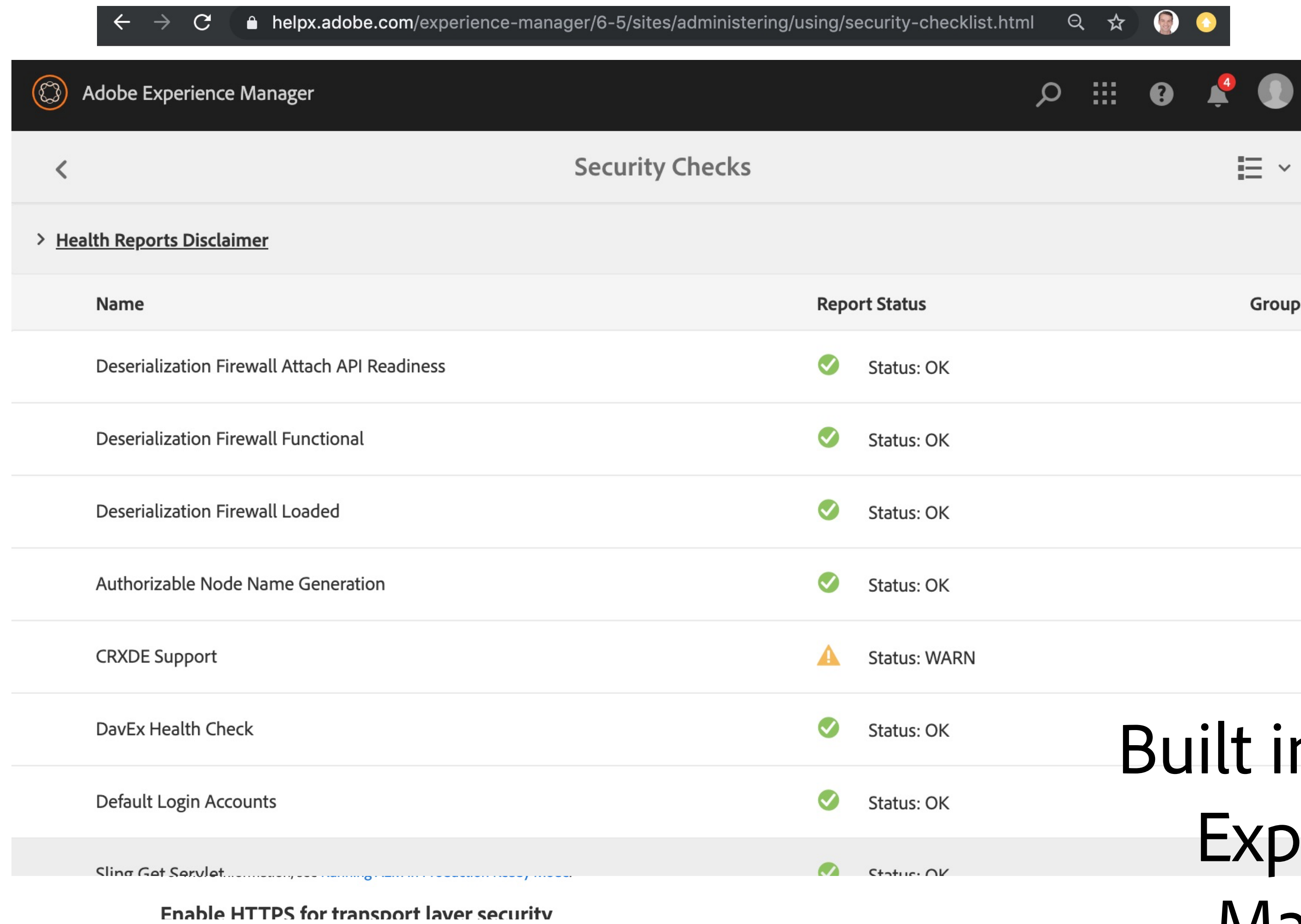


Important

- ✓ No vulnerabilities
- ✓ No bugs of "Critical" or "Blocker" severity
- ✓ Manageable amount of code smells
- ✓ Code Coverage more than 50%

PASSING THE SECURITY QUALITY GATE

Based on the Adobe Experience Manager Security Checklist...



The screenshot shows the Adobe Experience Manager Security Checks page. The browser address bar displays the URL: helpx.adobe.com/experience-manager/6-5/sites/administering/using/security-checklist.html. The page header includes the Adobe Experience Manager logo and navigation icons. The main content area is titled "Security Checks" and contains a table of security checks. The table has three columns: Name, Report Status, and Group. The checks listed are:

Name	Report Status	Group
Deserialization Firewall Attach API Readiness	✓ Status: OK	
Deserialization Firewall Functional	✓ Status: OK	
Deserialization Firewall Loaded	✓ Status: OK	
Authorizable Node Name Generation	✓ Status: OK	
CRXDE Support	⚠ Status: WARN	
DavEx Health Check	✓ Status: OK	
Default Login Accounts	✓ Status: OK	
Sling Get Servlet...	✓ Status: OK	

Below the table, there is a link to "Enable HTTPS for transport layer security".

Built into Adobe
Experience
Manager!

SECURITY HEALTH CHECKS BY CATEGORY



CRITICAL SECURITY HEALTH CHECKS

Default passwords changed

Sling JSP Script Handler configuration

SSL Configuration *

Sling default GET servlet protected from DOS attacks

Sling Java Script Handler configuration

Insecure user profile policies

Dispatcher properly filtering requests *

AuthorizableNodeName implementation

Deserialization firewall configuration



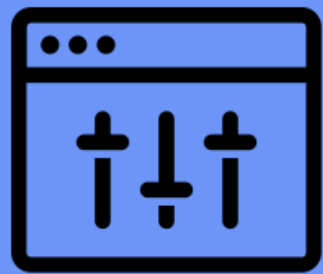
IMPORTANT SECURITY HEALTH CHECKS



CRXDE support bundle disabled



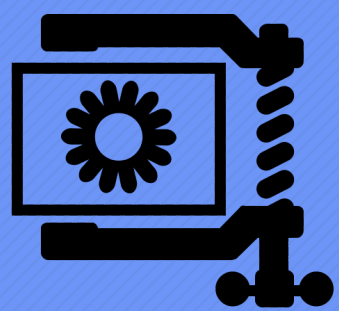
WCM request filter & WCM debug filter disabled



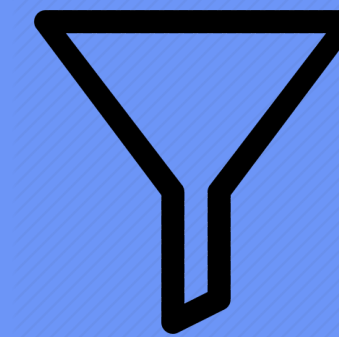
Sling DavEx bundle & servlet disabled



Sling WebDAV bundle & servlet configuration



Granite HTML Library Manager configuration



Sling Referrer Filter configuration



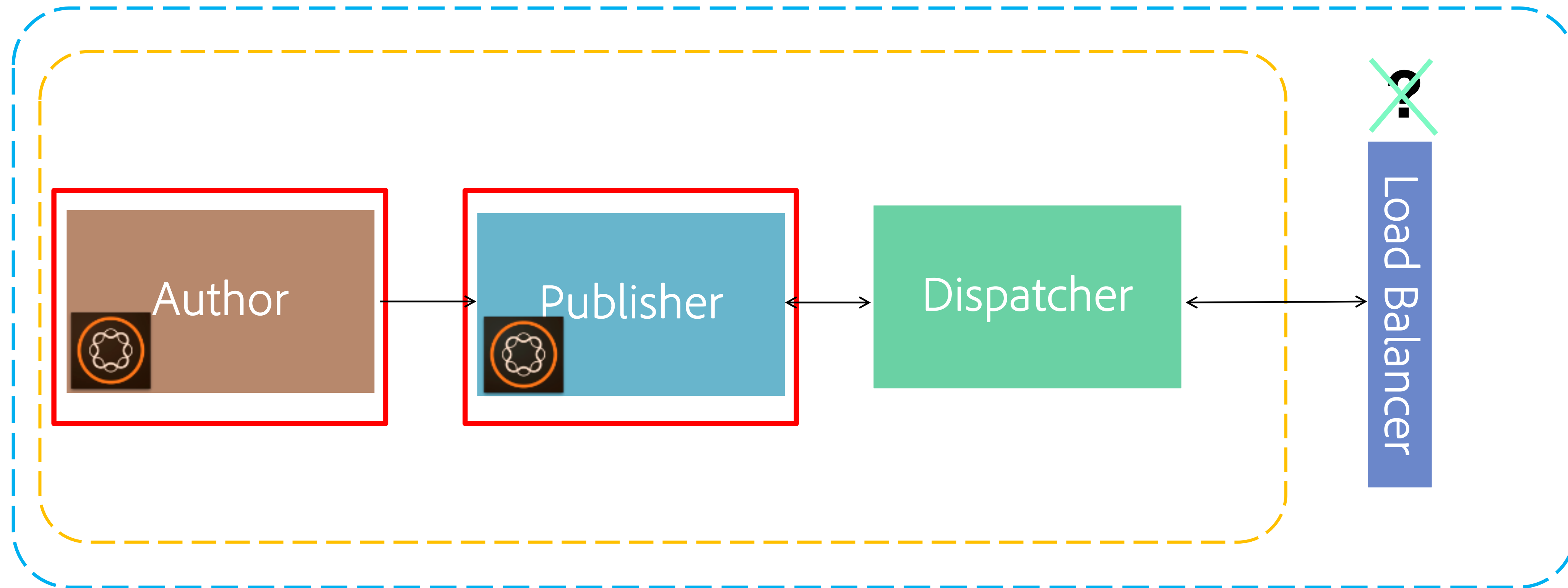
Sample content not installed



Web server configuration

SSL CONFIGURATION HEALTH CHECK

Which endpoint is being tested for SSL?



SSL CONFIGURATION HEALTH CHECK

Previous Method: Apache Felix Jetty Based Http Service

Apache Felix Jetty Based Http Service ✕

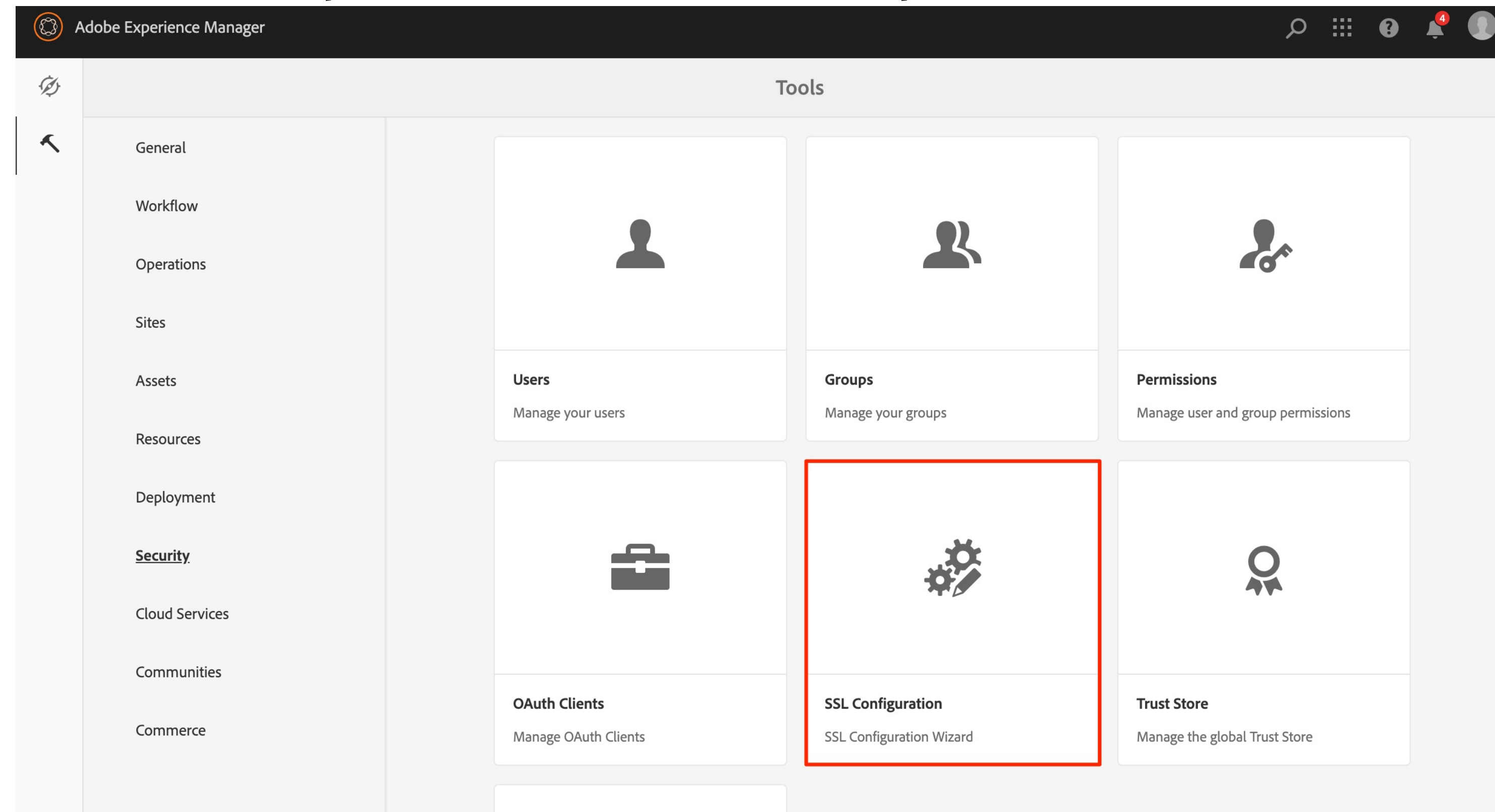
Configuration for the embedded Jetty Servlet Container.

Host Name	<input type="text" value="0.0.0.0"/>
	<p>⚠ IP Address or Host Name of the interface to which HTTP and HTTPS bind. The default is "0.0.0.0" indicating all interfaces. (org.apache.felix.http.host)</p>
Enable HTTP	<input checked="" type="checkbox"/>
	<p>⚠ Whether or not HTTP is enabled. Defaults to true thus HTTP enabled. (org.apache.felix.http.enable)</p>
HTTP Port	<input type="text" value="4502"/>
	<p>⚠ Port to listen on for HTTP requests. Defaults to 8080. (org.osgi.service.http.port)</p>
Connection Timeout	<input type="text" value="60000"/>
	<p>⚠ Time limit for reaching an timeout specified in milliseconds. This property applies to both HTTP and HTTPS connections. Defaults to 60 seconds. (org.apache.felix.http.timeout)</p>
Enable HTTPS	<input type="checkbox"/>
	<p>Whether or not HTTPS is enabled. Defaults to false thus HTTPS disabled. (org.apache.felix.https.enable)</p>
HTTPS Port	<input type="text" value="443"/>
	<p>⚠ Port to listen on for HTTPS requests. Defaults to 443. (org.osgi.service.http.port.secure)</p>
Keystore	<input type="text"/>
	<p>⚠ Absolute Path to the Kevstore to use for HTTPS. Only used if HTTPS is enabled in which case this propeerty is required.</p>



SSL CONFIGURATION HEALTH CHECK

New and improved method: SSL by Default



Cloud Manager requires SSL to be configured using the “SSL by Default” method

DISPATCHER CONFIGURATION HEALTH CHECK



Ensures proper Dispatcher filters are in place

- ✓ Author health check should be configured to test author farm filters
- ✓ Publish health check should be configured to test publish farm filters



Adjustable based on requirements

DISPATCHER CONFIGURATION HEALTH CHECK

Configured via "Adobe CQ Dispatcher Configuration Health Check" in configMgr

Dispatcher Address:

author or publish domain name,
including protocol

["https://author-prod.adobecqms.net"](https://author-prod.adobecqms.net) or
<https://prod.adobecqms.net>

Note: if using https, the health check will expect a valid SSL certificate, one that is trusted by the JVM cacerts

Unrestricted paths:

Paths that should be allowed

"/etc.clientlibs/"

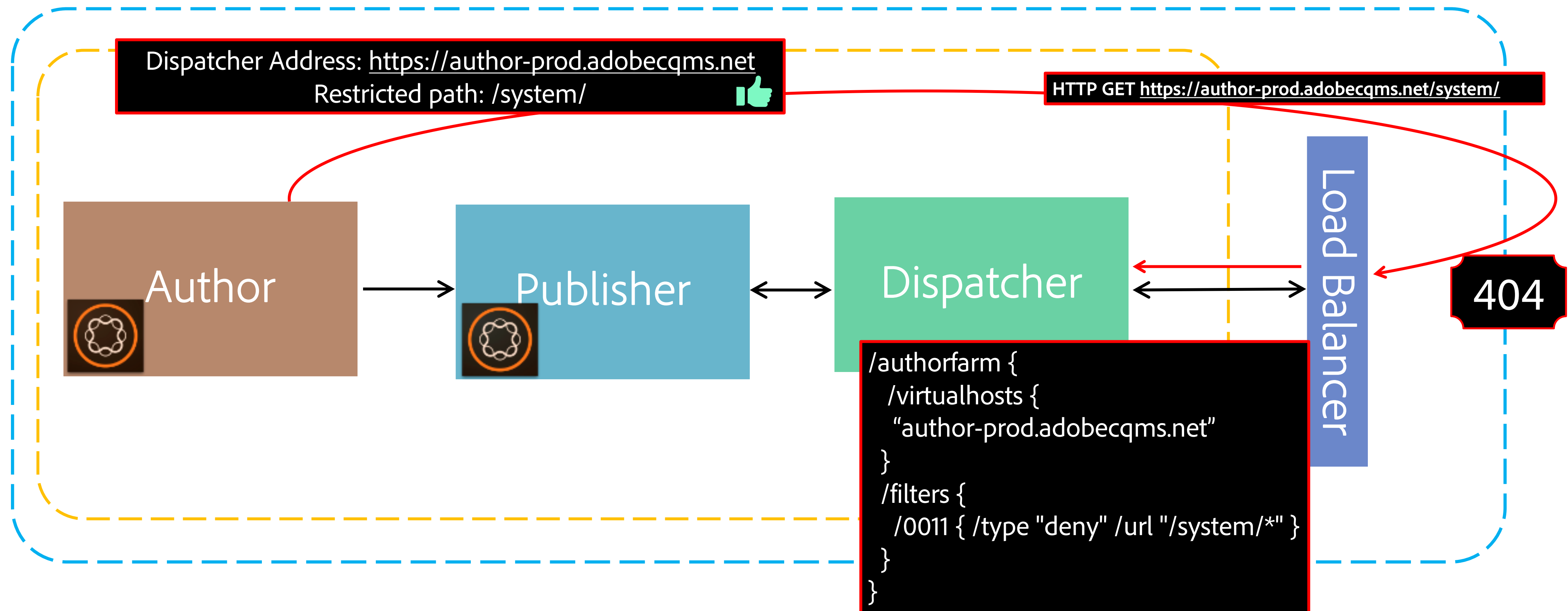
Restricted paths:

Paths that should be denied

"/system/"

DISPATCHER CONFIGURATION HEALTH CHECK

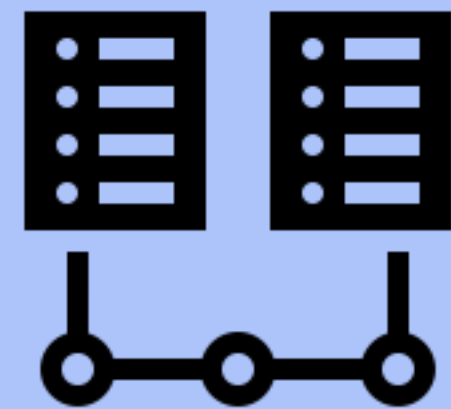
Health check flow



SECURITY TEST TAKEAWAYS



Executed on each AEM node in the topology



Conducted on all Stage AEM nodes



Verify security checks before triggering pipeline



Ask your CSE for help if you get an unexpected error



Use the published AEM Security Checklist

A critical failure on any node will cause entire test to fail

Stage should mirror production

Tools -> Operations -> Health Reports -> Security Checks
<https://<host>:<port>/system/console/healthcheck?tags=security>

Managed Services delivers pre-configured AEM environments built on best practices

Found on Adobe Docs

NEXT SESSION



Dispatcher Configurations with Cloud Manager

Wednesday, October 16
10:00am-10:45am PST



Creating Workflows with Cloud Manager and Third-Party Tools

Wednesday, November 13
10:00am-10:45am PST



HELPFUL RESOURCES



Understand your Cloud
Manager test results



View the Sonarqube code
quality rules



Learn about the AEM
security checklist