



# Platform Maturity (S3P) Casablanca Proposal

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# Proposed Requirement Level Definition – Security

## *Project-level requirements*

- Level 0: None
- Level 1: CII Passing badge
  - *Including no critical and high known vulnerabilities > 60 days old*
- Level 2: CII Silver badge, plus:
  - All internal/external system communications shall be able to be encrypted.
  - All internal/external service calls shall have common role-based access control and authorization **using CADI framework.**
- Level 3: CII Gold badge

## *ONAP Platform-level requirements per release*

- Level 1: 70 % of the projects passing the level 1
  - with the non-passing projects reaching 80% passing level
  - Non-passing projects **MUST** pass specific cryptography criteria outlined by the Security Subcommittee\*
- Level 2: 70 % of the projects passing silver
  - with non-silver projects:
    - completed passing level and 80% towards silver level
    - **internal/external system communications shall be able to be encrypted.**
- Level 3: 70% of the projects passing gold
  - with non-gold projects achieving silver level and achieving 80% towards gold level
- Level 4: 100 % passing gold.

# Recommended Security Levels

Area	Priority	Min. Level	Stretch Goal	Level Description (abbreviated)
Security	High	<del>Platform Level 1</del> <b>Absolute Minimum expectation:</b> <ul style="list-style-type: none"><li>• CII badging passing level</li><li>• Continuously retaining no critical or high known vulnerabilities &gt; 60 days old</li><li>• All communication shall be able to be encrypted and have common role-based access control and authorization.</li></ul> Desired expectation is full CII badging silver level, if not 75% towards that.	<b>Project Level 2</b>	<ul style="list-style-type: none"><li>• 1 – 70% pass level 1 (CII Passing plus more)</li><li>• 2 – 70% pass CII Silver (plus more)</li><li>• 3 – 70% pass CII Gold (plus more)</li><li>• 4 – 100% pass CII Gold</li></ul>

# Recommended Performance Levels

## Performance

- **Level 0:** no performance testing done
- **Level 1:** baseline performance criteria identified and measured (such as response time, transaction/message rate, latency, footprint, etc. to be defined on per component)
- **Level 2:** performance improvement plan created ~~& implemented for 1 release (improvement measured for equivalent functionality & equivalent hardware)~~
- **Level 3:** performance improvement plan implemented for ~~2~~ 1 consecutive releases (improvement measured for equivalent functionality & equivalent hardware)

Area	Priority	Min. Level	Stretch Goal	Level Descriptions (abbreviated)
Performance	<del>Low</del> /Med	<del>Level 1</del> <b>Level 2</b> – closed-loop projects <b>Level 0</b> – remaining projects	<b>Level 1</b> – remaining	•0 -- none •1 -- baseline performance criteria identified and measured •2 & 3 – performance improvement plans created & implemented

# Recommended Platform Maturity Levels for Casablanca

Area	Priority	Min. Level	Stretch Goal	Level Descriptions (abbreviated)
<b>Stability</b>	Medium	<del>Level 1</del> <b>Level 2</b>		<ul style="list-style-type: none"> <li>•0 -- none</li> <li>•1 – 72 hour component level soak w/random transactions</li> <li>•2 – 72 hour platform level soak w/random transactions</li> <li>•3 – 6 month track record of reduced defect rate</li> </ul>
<b>Resiliency</b>	High	<b>Level 2</b> – run-time projects <b>Level 1</b> – remaining projects	<b>Level 3</b> – run-time projects <b>Level 2</b> – remaining projects	<ul style="list-style-type: none"> <li>•0 -- none</li> <li>•1 – manual failure and recovery (&lt; 30 minutes)</li> <li>•2 – automated detection and recovery (single site)</li> <li>•3 – automated detection and recovery (geo redundancy)</li> </ul>
<b>Scalability</b>	Low	<b>Level 1</b> – run-time projects <b>Level 0</b> – remaining projects	<b>Level 1</b>	<ul style="list-style-type: none"> <li>•0 – no ability to scale</li> <li>•1 – single site horizontal scaling</li> <li>•2 – geographic scaling</li> <li>•3 – scaling across multiple ONAP instances</li> </ul>

# Proposed Requirement Level Definition – Manageability

## Manageability

- **Level 1:**
  - All ONAP components will use a single logging system.
  - Instantiation of a simple ONAP system should be accomplished in <1 hour with a minimal footprint
- **Level 2:**
  - A component can be independently upgraded without impacting operation interacting components
  - ~~Transaction tracing across components~~
  - Component configuration to be externalized in a common fashion across ONAP projects
  - All application logging to adhere to [ONAP Application Logging Specification v1.2](#)
- **Level 3:**
  - Transaction tracing across components

Area	Priority	Min. Level	Stretch Goal	Level Descriptions (abbreviated)
Manageability	High	<del>Level 1</del> Level 2	Level 3	<ul style="list-style-type: none"><li>•1 – single logging system across components; instantiation in &lt; 1 hour</li><li>•2 – ability to upgrade a single component; externalized configuration management; adhere to <b>application logging spec V1.2</b></li><li>•3 - tracing across components;</li></ul>

# Proposed Requirement Level Definition – Usability

- **Level 1**

- User guide created
- Deployment documentation
- API documentation
- Adherence to coding guidelines

- **Level 2**

- **API Documentation**
  - All new API's must adhere to the ONAP API Common Versioning Strategy and Documentation Guidelines; All existing APIs must be documented in Swagger 2.0
- ~~- Consistent UI across ONAP projects~~
- ~~- Usability testing conducted~~
- Projects contribute to end-to-end tutorials

- **Level 3**

- Consistent UI across ONAP projects
- Usability testing conducted
- API Documentation
  - All new API's, all external APIs, and all existing API's that are modified must adhere to the ONAP API Common Versioning Strategy and Documentation Guidelines

- **Level 4**

- API Documentation
  - All API's for a given project must adhere to the ONAP API Common Versioning Strategy and Documentation Guidelines

# Recommended Platform Maturity Levels for Casablanca

Area	Priority	Min. Level	Stretch Goal	Level Descriptions (abbreviated)
<b>Usability</b>	Moderate	<del>Level 1</del> <b>Level 2</b>	<b>External APIs follow Policy</b>	1 – user guide; deployment documentation; API documentation; adherence to coding guidelines 2 – API Documentation ( <b>new APIs follow policy, rest Swagger 2.0</b> ); tutorial documentation 3- <b>UI consistency; usability testing; API Documentation (changed and external APIs follow policy)</b> 4 – <b>API Documentation (all follow policy)</b>





**ONAP**  
OPEN NETWORK AUTOMATION PLATFORM

# BACKUP

# Current Requirements Levels – Performance, Stability

## Performance

- **Level 0:** no performance testing done
- **Level 1:** baseline performance criteria identified and measured (such as response time, transaction/message rate, latency, footprint, etc. to be defined on per component)
- **Level 2:** performance improvement plan created & implemented for 1 release (improvement measured for equivalent functionality & equivalent hardware)
- **Level 3:** performance improvement plan implemented for 2 consecutive releases (improvements in each release)

## Stability

- **Level 0:** none beyond release requirements
- **Level 1:** 72 hour *component*-level soak test (random test transactions with 80% code coverage; steady load)
- **Level 2:** 72 hour *platform*-level soak test (random test transactions with 80% code coverage; steady load)
- **Level 3:** track record over 6 months of reduced defect rate

# Current Requirements Levels – Resiliency

- **Level 0:** no redundancy
- **Level 1:** support manual failure detection & rerouting or recovery within a single site; tested to complete in 30 minutes
- **Level 2:** support automated failure detection & rerouting
  - within a single geographic site
  - stateless components: establish baseline measure of failed requests for a component failure within a site
  - stateful components: establish baseline of data loss for a component failure within a site
- **Level 3:** support automated failover detection & rerouting
  - across multiple sites
  - stateless components
    - improve on # of failed requests for component failure within a site
    - establish baseline for failed requests for site failure
  - stateful components
    - improve on data loss metrics for component failure within a site
    - establish baseline for data loss for site failure

# Current Requirements Levels – Security

## *Project-level requirements*

- **Level 0:** None
- **Level 1:** CII Passing badge
- **Level 2:** CII Silver badge, plus:
  - All internal/external system communications shall be able to be encrypted.
  - All internal/external service calls shall have common role-based access control and authorization.
- **Level 3:** CII Gold badge

## *ONAP Platform-level requirements per release*

- **Level 1:** 70 % of the projects passing the level 1
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  - Non-passing projects **MUST** pass specific cryptography criteria outlined by the Security Subcommittee\*
- **Level 2:** 70 % of the projects passing silver
  - with non-silver projects completed passing level and 80% towards silver level
- **Level 3:** 70% of the projects passing gold
  - with non-gold projects achieving silver level and achieving 80% towards gold level
- **Level 4:** 100 % passing gold.

# Current Requirements Levels – Scalability, Manageability

## Scalability

- **Level 0:** no ability to scale
- **Level 1:** supports single site horizontal scale out and scale in, independent of other components
- **Level 2:** supports geographic scaling, independent of other components
- **Level 3:** support scaling (interoperability) across multiple ONAP instances

## Manageability

- **Level 1:**
  - All ONAP components will use a single logging system.
  - Instantiation of a simple ONAP system should be accomplished in <1 hour with a minimal footprint
- **Level 2:**
  - A component can be independently upgraded without impacting operation interacting components
  - Transaction tracing across components
  - Component configuration to be externalized in a common fashion across ONAP projects

# Current Requirements Levels – Usability

- **Level 1**

- User guide created
- Deployment documentation
- API documentation
- Adherence to coding guidelines

- **Level 2**

- Consistent UI across ONAP projects
- Usability testing conducted
- Tutorial documented