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Enabling Grids for E-sciencE

The updated gLite release process

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e-infrastructure

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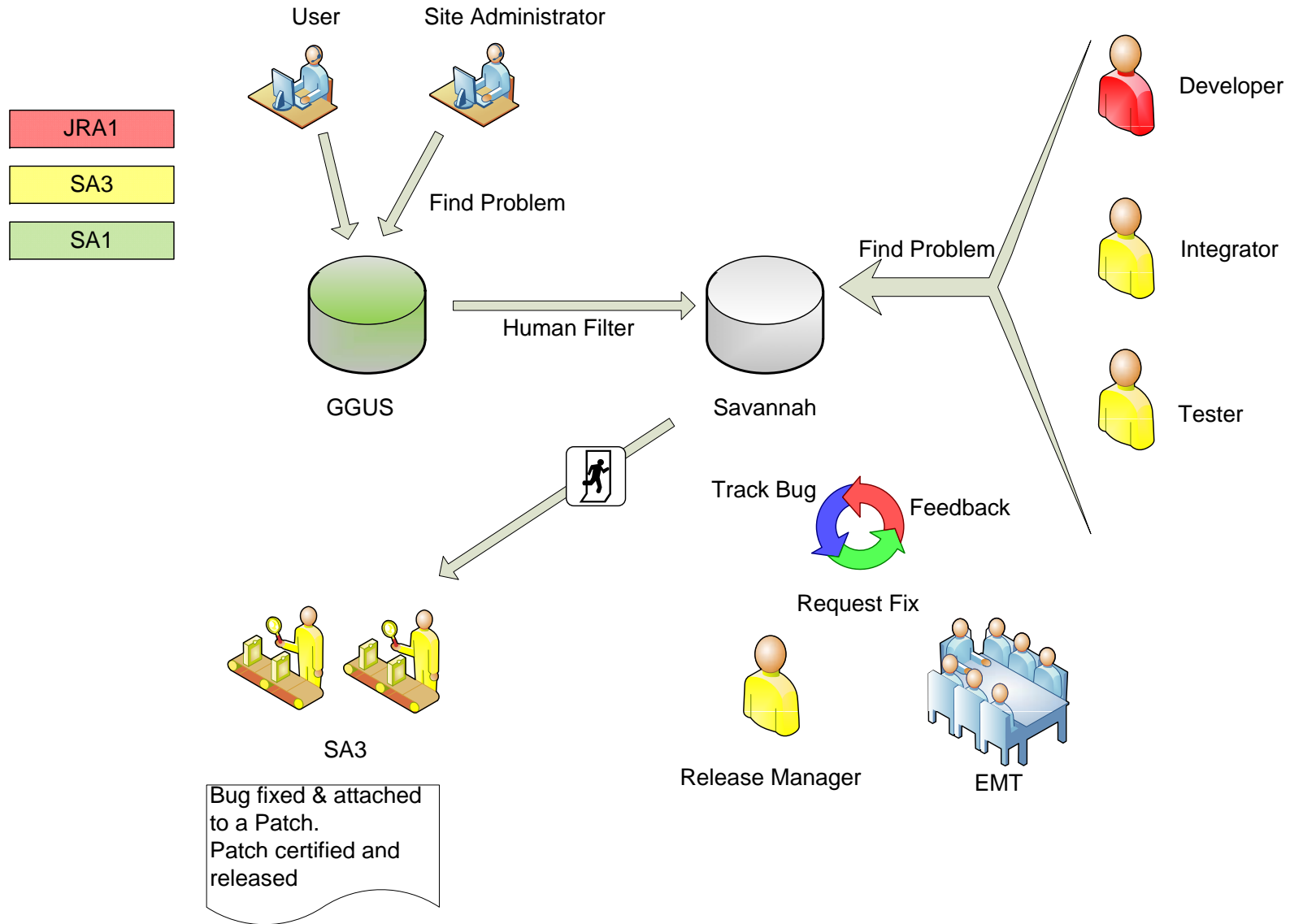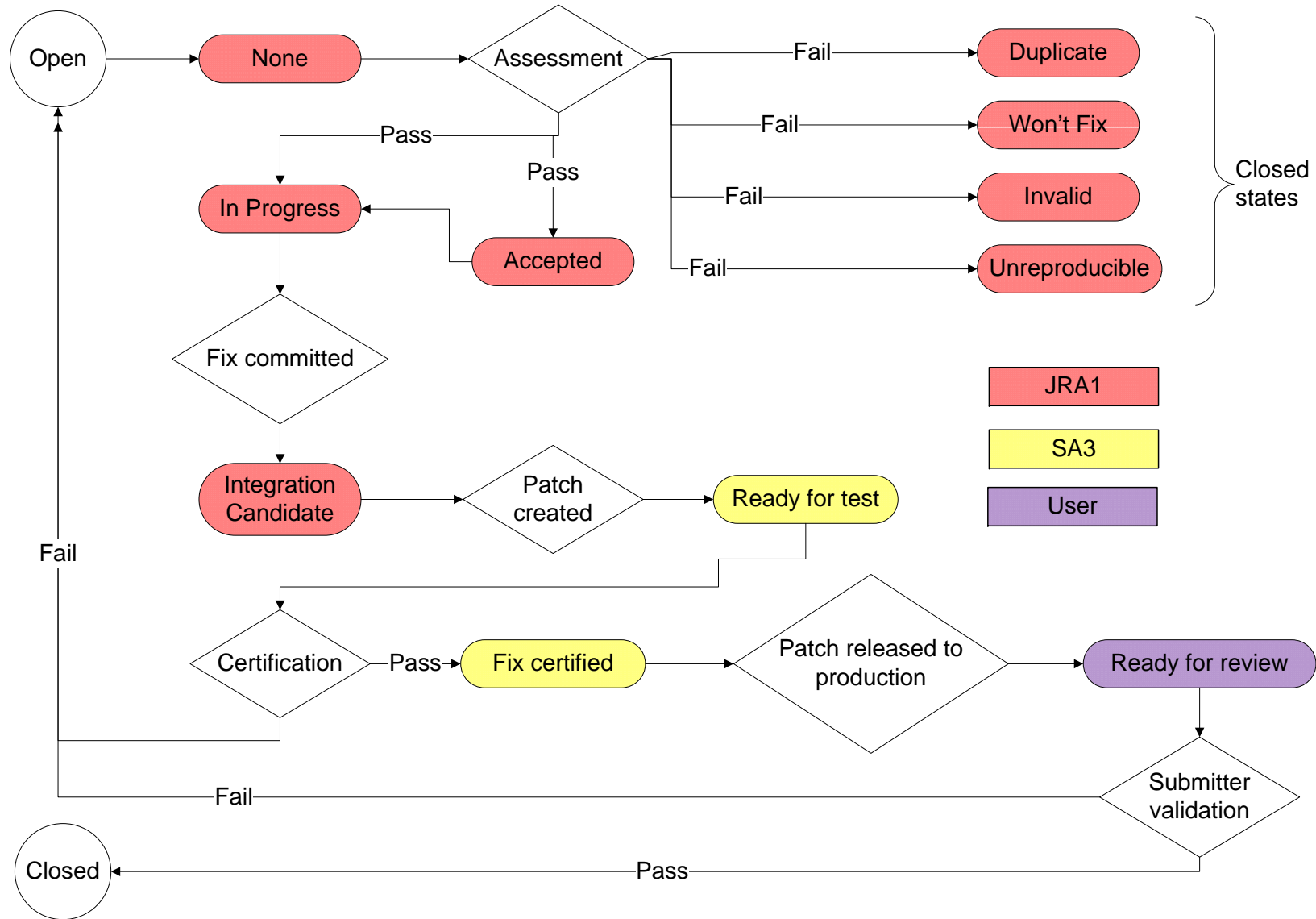
Enabling Grids for E-sciencE

- **Issues found during EGEE II**

- **Diagrams: Bug submission, bug states, patch states**

- **Patch acceptance/rejection criteria**

- **Tools**

- **gLite build**
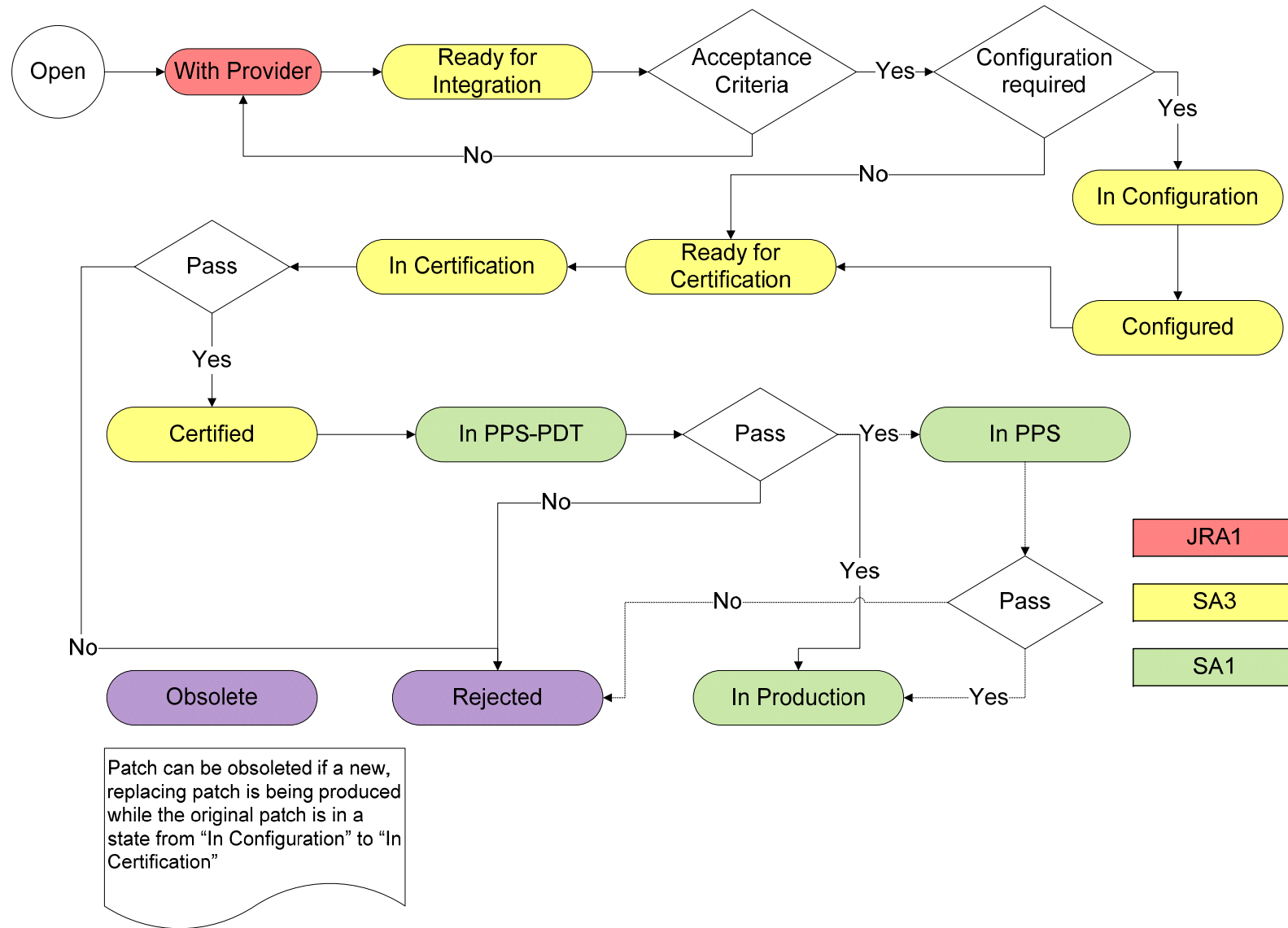
Issues found during EGEE II

- **JRA1/SA3 handover**
  - Around 50% did not reach production
  - Certification process is expensive (several actors, communication needs)
  - Process suffered from delays where patches remained in "waiting" states awaiting a release window

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- **SA3/SA1 handover**
  - Process is not able to roll back changes from production
  - Consolidation of release documentation, integration of documentation checks into the release process
  - Having a bug fix to be validated by the original submitter before it can be closed led to a large number of open bugs in final state "Ready for Review"

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User   Site Administrator

JRA1

SA3

SA1

Developer

Find Problem

Find Problem   Integrator

Human Filter

Tester

GGUS   Savannah

Track Bug   Feedback

Request Fix

SA3

Release Manager   EMT

Bug fixed & attached
to a Patch.
Patch certified and
released

eGee

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Patch can be obsoleted if a new, replacing patch is being produced while the original patch is in a state from "In Configuration" to "In Certification"

- **Checks that can be done automatically:**
  - ETICS configuration
  - Correct rpm list corresponding to the ETICS configuration, rpms exist in ETICS repository
  - Affected metapackages
  - Mandatory Savannah fields are not empty
  - Only well defined metapackage names appear in the metapackage fields
  - Deployment test (prototype available in ETICS): affected production node types can be updated with the rpms

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- **Minimal required documentation**
    - Service Reference Cards
      https://twiki.cern.ch/twiki/bin/view/EGEE/ServiceReferenceCards

    - Functional description of the service

    - User documentation to allow testers to start

    - List of "sub services" and their role

    - List of processes that are expected to run

    - A description on how state information is managed

    - A statement on whether the state be rebuild from other sources

    - Description of how to follow audit trails

    - Description of configuration (not detailed)

    - Port list

    - Description on how to start/stop/inquire service

Acceptance criteria for release

- **Service Reference Cards**
  https://twiki.cern.ch/twiki/bin/view/EGEE/ServiceReferenceCards
  – Configuration documentation
  – Statement on 32/64 bit compliance
  – Statement of functionality that will be supported including an estimated scale
  – Tests for supported subset functionality
  – Initial operations guide
    - How to drain service
    - How to restart service
    - Needed actions to activate configuration changes
    - Cleanup procedure after abrupt stop of the service
    - Effect of service unavailability on other services
  – Service maintenance
  – Known issues

- **Patch gets rejected if an rpm has to be changed**
  - Breaking existing functionality. Checked with the tests listed in the Service Certification Checklist https://twiki.cern.ch/twiki/bin/view/EGEE/ServiceCertificationChecklist
  - Major bug not fixed in the patch

- **Bugs that are found to be not fixed may be detached from the patch**

- **Rejected patch gets cloned (information in the patch preserved)**

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- **Savannah CLI**

  - Python script to interact with Savannah from the command line

  - Clone a patch

  - Automatic bug state change with patch state change

  - Check patch acceptance criteria

- **Watchdog cronjob**

  - Check if bug status corresponds to patch status

- **org.glite: 289 Modules, 5211 Configurations, 149 Main Reports, 1583 Metrics, 1.6 M lines of code**

- **Two main configurations (glite_branch_3_1_0, glite_branch_3_1_0_dev)**

- **Often conflicts resulting from the need for different versions of the same component (e.g. classads) used by different developers**
  - Decoupled release cycles for the services. Updates to one service should be independent from updates to other services
  - Building for multiple platforms

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- **Currently investigating node type builds**
  - Use project configurations including only the needed component configurations
  - Done for SL5 glite-WN
  - https://twiki.cern.ch/twiki/bin/view/EGEE/NodeTypeBuilds

- **New feature for ETICS (proposition from ETICS team)**
  - Transform the subsystems to become independent groups of selectable components
  - Allow a component to be in multiple Subsystems
  - From "Folder" to "Tag" paradigm