Smart Test Management System through Open Interfaces

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SofTec Conference 2010 Pune

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Sabre Holdings connects people with the world's greatest travel possibilities by retailing travel products and providing distribution and technology solutions for the travel industry.

- **Headquartered in Southlake, Texas**
- **Approximately 9,000 employees in 59 countries, including 600+ in India**
- **300+ airline customers in 113 countries**
- **Sabre's systems process more than 19,000 transactions per second – about 2 billion every day**

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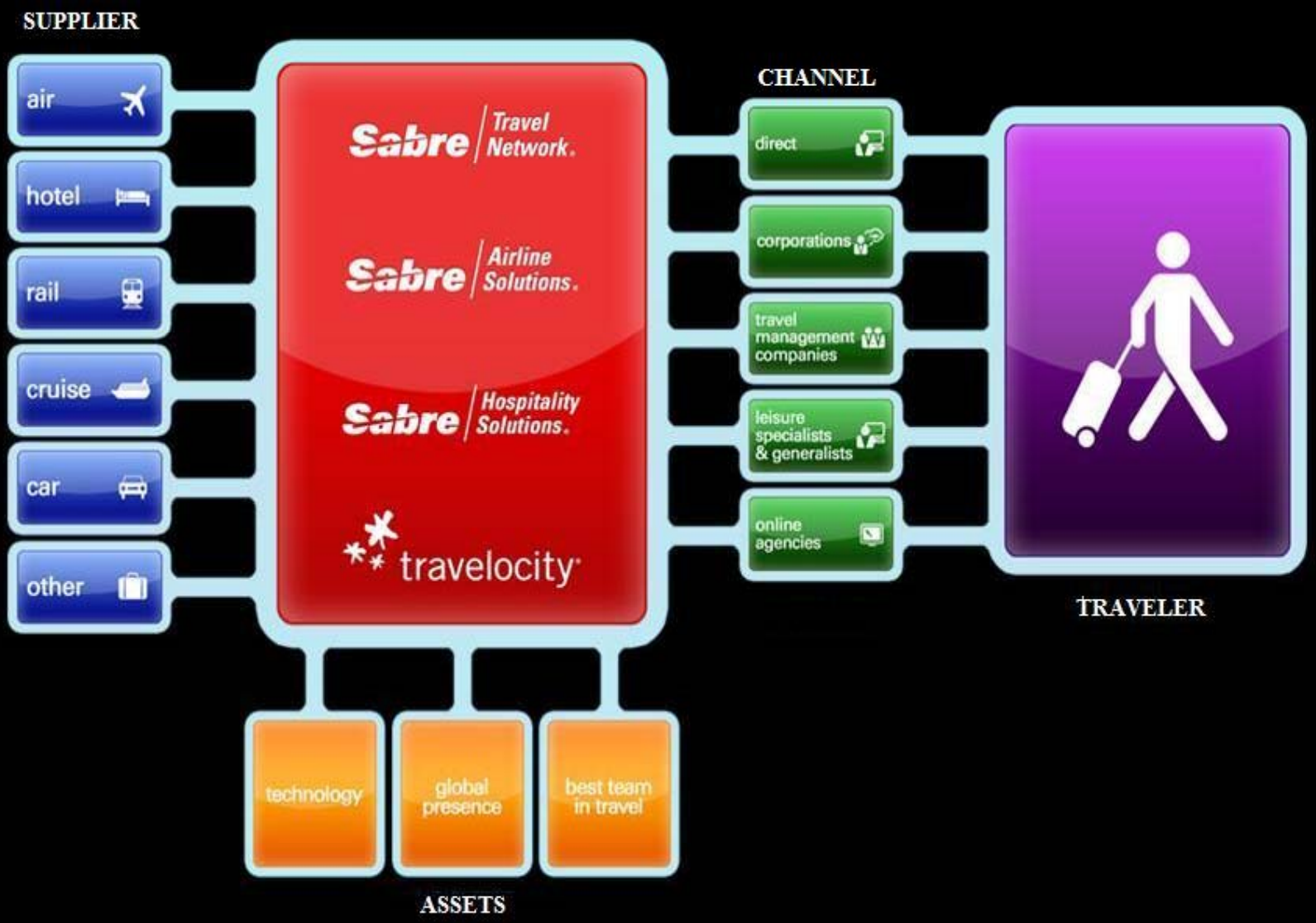

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Sabre India Office @ BLR

- **Located at ITPL, Whitefield**
- **Innovation using cutting edge technology**
- **Excelling in world class delivery**
- **Excellent compensation & benefits**

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The Myth of Sisyphus

- Sisyphus is a Greek mythology
- Sisyphean challenge can be equated to Testing & Automation challenges

Problem statement

- QA Teams use different tools/methods for testing different requirements ex: Manual testing, QTP, FitNesse, Jmeter, SOAtest, Selenium etc..
- QA's would be using different Testing engines, repositories, defect tracking systems.
- How to ensure traceability across various tools [Project Management, Test Management, Automation tools, Defect Trackers etc]

❖ *So how does IT develop a standard framework for Quality Assurance?*

The Goal

- One single Integrated execution and test management environment for commonly used QA tools in the organization at different QA phases
- Integrate tools using Open API's
- Drive Standardization across the organization

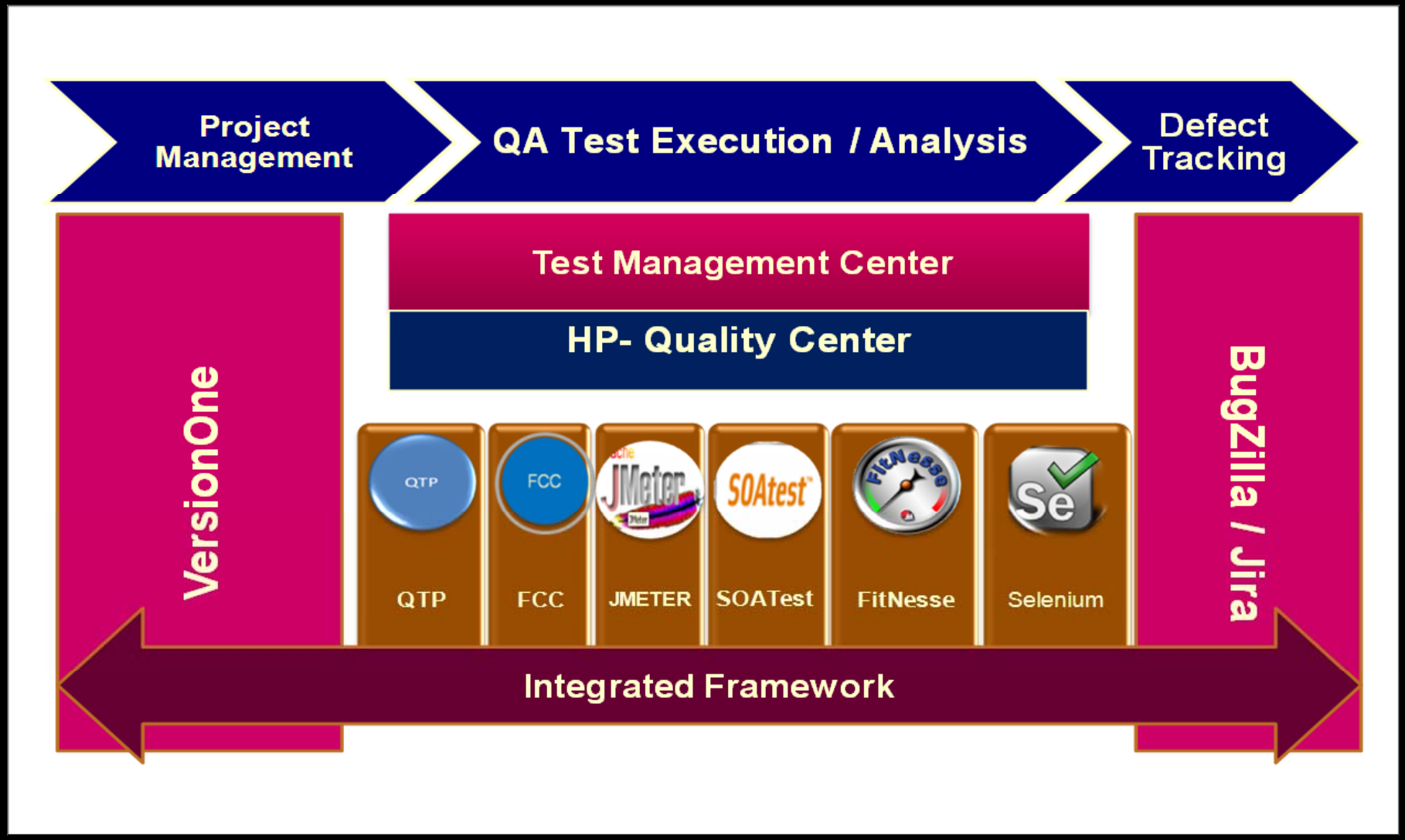
The Approach

- Develop creation, execution, defect analysis capabilities within one single Test Management System
- Use Open Test Architecture Model to develop plug-ins for different test engines, defect tracking tools.

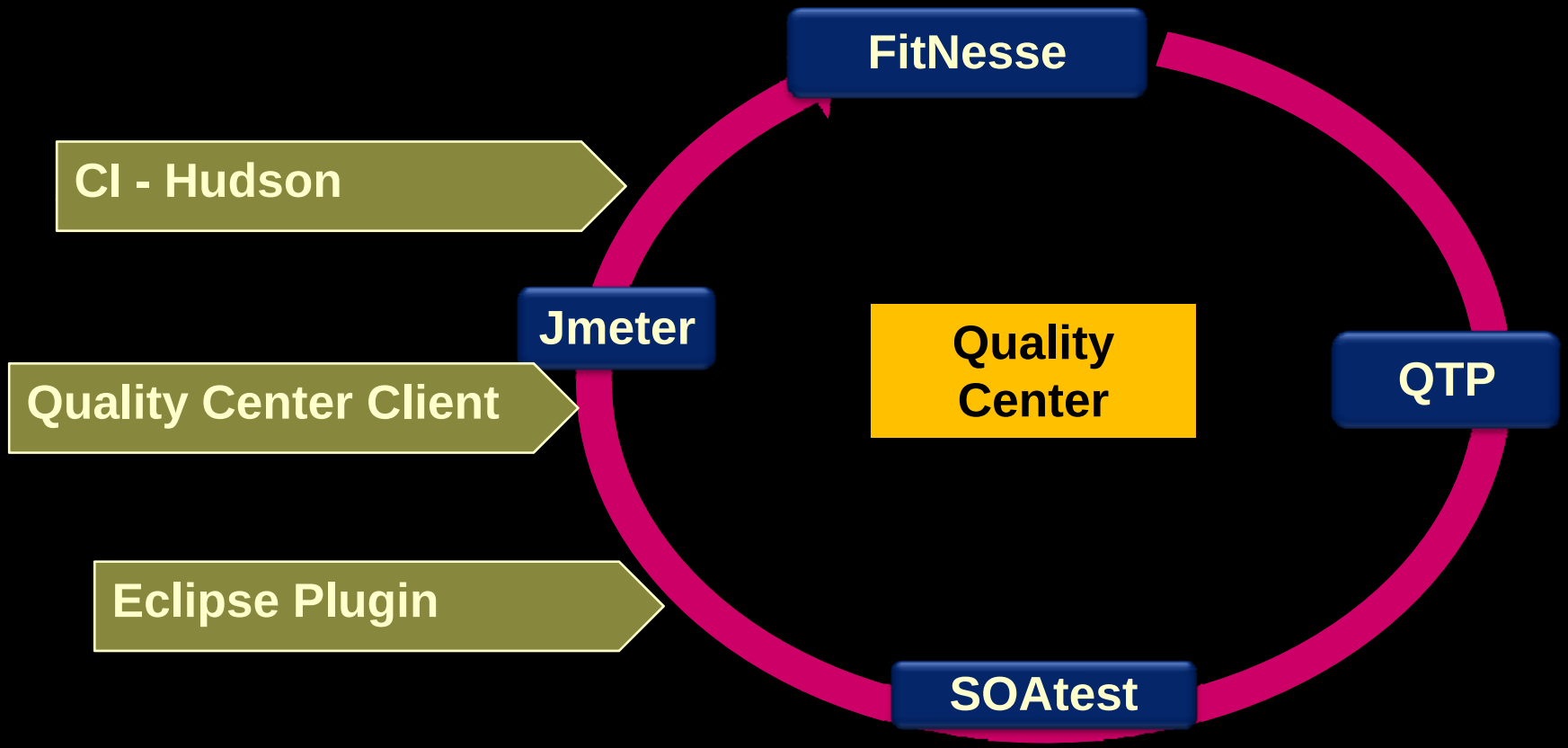
One Stop Shop: The need

- Technology agnostic
- Single point of execution for all Test Engines
- Maintenance of Test artifacts becomes easy and efficient
- Single repository of all *Test Results*
- Single repository for *Analysis* of test results

QA Tools / Framework



Central Execution Engine



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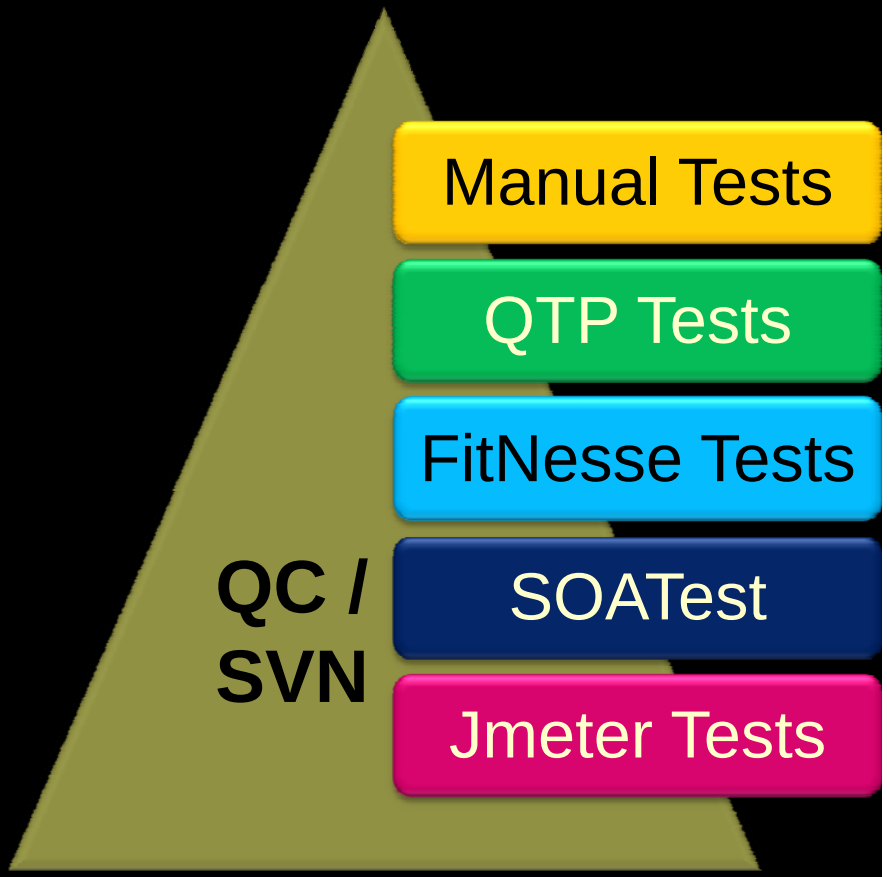
Single & Central Repository

- Options for repositories:
  - Quality Center
    - Pros
      - In-built execution capability with other HP/Mercury tools like QTP, LoadRunner etc.
      - Extensible OTA API for adding more plug-ins
    - Cons
      - License based
  - SubVersion
    - Pros
      - Open source
      - Versioning built-in
      - Support for Java frameworks
    - Cons
      - No in-built database support



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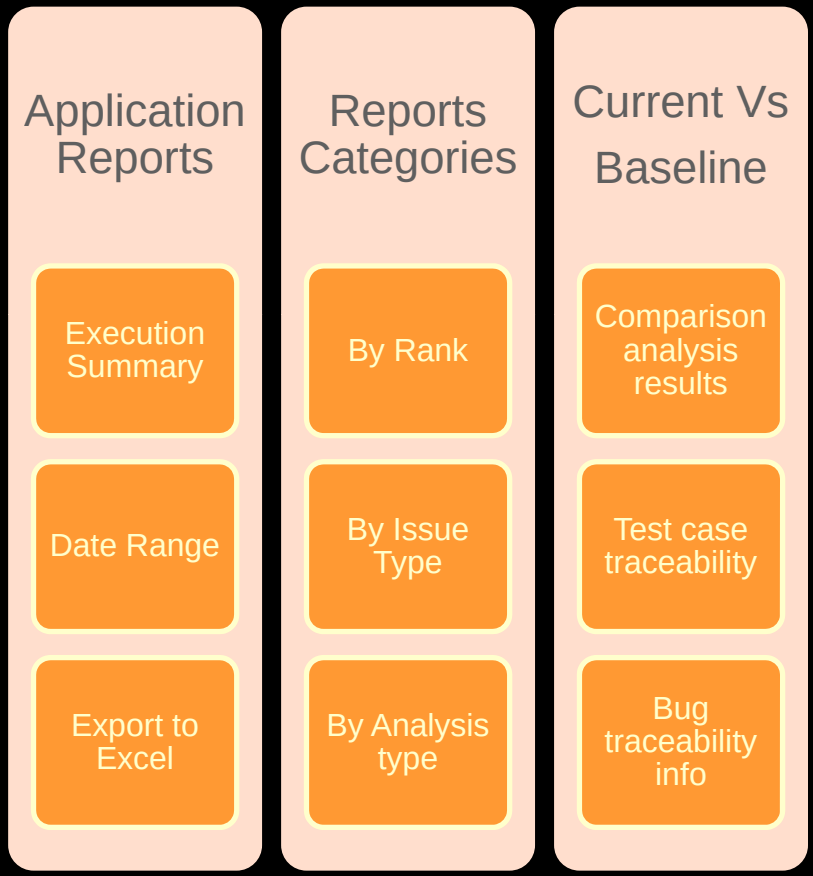
Integrated Defect Tracking

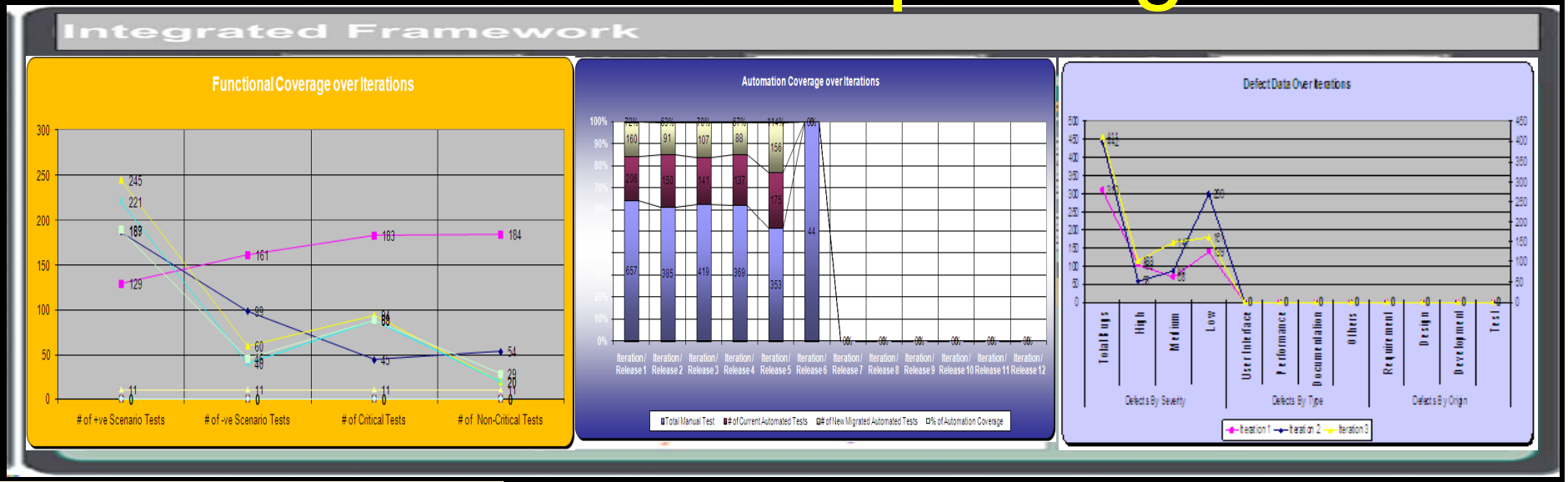
- Integration with defect tracking tools like BugZilla, Jira, Merrant Tracker etc. (supported by OTA)
  - Bi-directional traceability between QC and Defect Tracking System
  - Bi-direction traceability between PMT and DTS

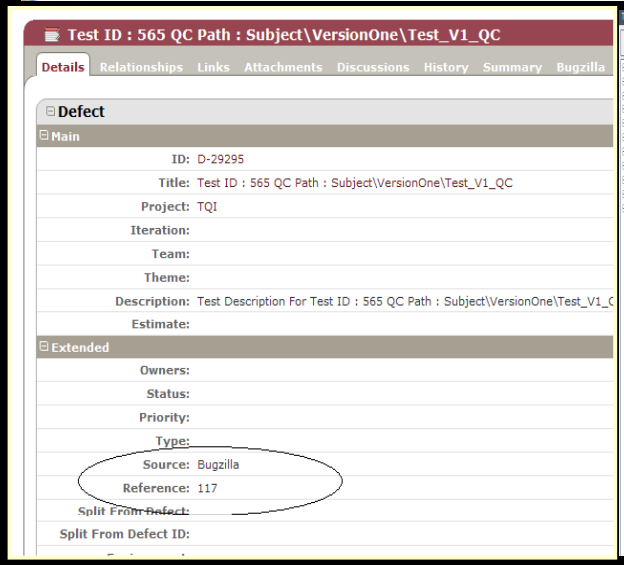
Integrated Analysis

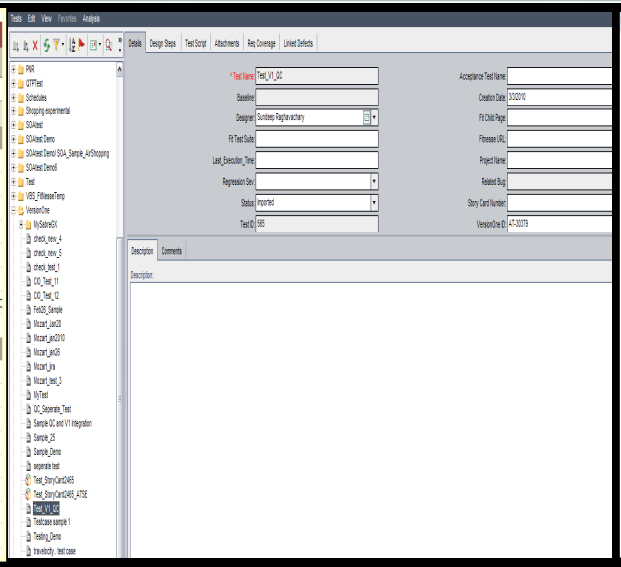
- **Interact with Quality Center (QC) and access the test artifacts from QC**
- **Benefits:**
  - **Consolidated view of execution details such as results, run details, log files etc**
  - **Facilitates comprehensive analysis of the test scripts results**
  - **Validate the Current Test results against a baseline results**
  - **Generate Product-Area wise Reports (with failures categorized by Severity)**
  - **Ability to update the baseline for all test artifacts**
  - **Ability to alert the Product area functional SME for any corrective action/fix.**

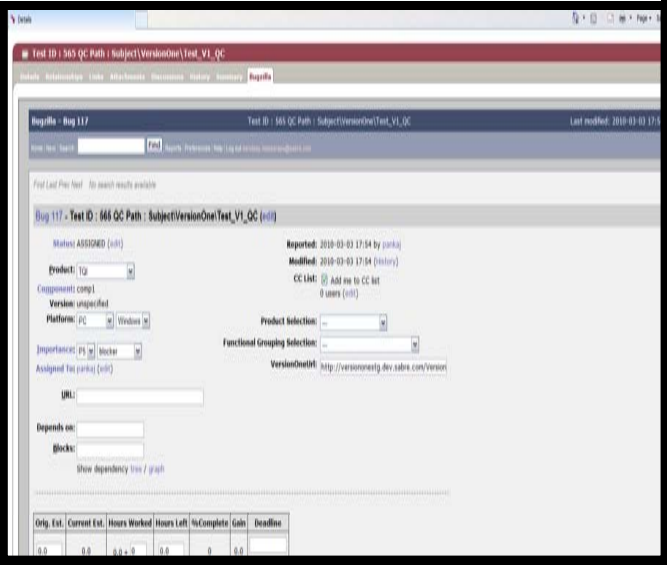


Metrics & Reporting









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Conclusions

- Integrated QA environment is possible with Open Interfaces
- Enables Integration of various tools like, Quality Center, FitNesse , QTP, SOA Test and the PM tools seamlessly

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Acknowledgements

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- Raghuvir Konanki [Software Engineer]

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Demo

Q & A

For more information about the integrated framework, Please get in touch with Srinivas.Chintha@Sabre-Holdings.com

Thank You

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