Cypress

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Agenda

• What is Cypress?
• The continual need for certification and testing
• How Cypress performs certification testing
• How Cypress is provided to the community
• Demonstration
What is Cypress?

• A testing tool
  – Validates Electronic Health Record (EHR) system’s ability to correctly calculate electronic Clinical Quality Measures (eCQM).

• The official testing tool for the 2015 EHR Certification program
  – Supported by the Office of the National Coordinator for Health IT (ONC).

• An open-source project
  – Freely available for use or adoption by the Health IT community including EHR vendors and testing labs.
The continual need for certification and testing

- eCQMs exist in a fluid environment
  - eCQMs are updated in a yearly cycle to address
    - Changes in clinical practices
    - The addition and removal of codes
    - Bugs in measure logic
    - New and retired measures
  - eCQM standard updates

- Each year, certified systems need to update their systems to comply with the updates to eCQMs and standards
  - Even though recertification is not required, vendors retest their systems using Cypress
What Does Cypress Test?

- Given a set of patients and eCQMs, Cypress tests the ability of an EHR to:

  1. Capture the information required to calculate the selected eCOM
  2. Export the information required to calculate the selected eCOM
  3. Calculate the results of the selected eCOM
  4. Report the calculated result of the selected eCOM
  5. Report eCQM data that has been filtered
Testing Workflow
How is Cypress made available?

• Cypress is developed as Open Source
  – Source code is made freely available and may be redistributed and modified.
• Cypress releases are distributed as a
  – Virtual Machine
    • A fully enclosed version which can be installed as-is on an organizations network
  – Amazon Machine Imagine
    • A virtual machine that can be run on Amazon’s Elastic Compute Cloud
  – Demo Server
    • Publically available instances of Cypress
      – https://cypress.healthit.gov/
      – https://cypressvalidator.healthit.gov/
    • Distribution model allows for EHR’s vendors to install and use Cypress locally within their organization’s firewalls to prior to certification
Engagement with the user community

The Cypress development team is continually engaged with its user community (certification bodies, and EHR vendors):

- Cypress hosts bi-weekly tech talk
  - Register at https://attendee.gotowebinar.com/register/8110364277730751489
- All tech talks and webinars are posted on the Cypress website
  - https://www.healthit.gov/cypress/techtalks.html
- Continually engage with EHR community
  - Through a Google Group forum/discussion board
    - project-cypress-talk@googlegroups.com
  - Public Issue tracking
    - https://oncprojecttracking.healthit.gov/support/browse/CYPRESS

- Cypress releases Beta versions prior to each official release seeking inputs from user community
- Many usability enhancements proposed from user community have been included in a Cypress release
Demonstration

• Vendor receiving feedback on a failed test
• Test Proctor Dashboard and exporting the results of a test
• Cypress Validation Utility