# Test Strategy DirectNet Suite of Applications 12/10/2017



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# 1. Introduction

## 1.1 Purpose

The purpose of this document is to formally communicate the test strategy for DirectNet project.

- Provide a central artifact to govern the strategic approach to the quality assurance efforts for DirectNet project
- ❖ Identify and define Testing activities, outline the testing approach, define roles and responsibilities, and identify metrics for status reporting and process improvement.
- ❖ Provide a document to be used as a reference for detailed steps of the Testing processes for the DirectNet project

This is a living document which will be updated as the project progresses.

## 1.2 Project Background

DirectNet Modernization is an initiative part of 8248-2018 Data Center Evacuation Engineering to move all the DirectNet applications to Azure from on premises. As part of this initiative, following phases are planned

- Discovery & Assessment of applications
- Upgrade the existing code to target 4.x .NET framework
- Refactor as well as follow Secure SDLC practices
- Follow the current release management process
- Migration from on premises to Azure Platform as a Service (PaaS)

# 1.3 Intended Audience

The intended audience for this document includes

- Product Owner
- Analysts
- Developers
- Testing team
- Application Owners
- Managers / Directors
- All other stakeholders of the project

# 2. DirectNet Applications in Scope

A complete list of the <u>application</u> inventory is listed in the Applications. This provides an up-to-date Applications in scope for testing team.

# 3. Scope

## 3.1 Test Scope

The scope of DirectNet Testing team is to validate the applications developed in latest .net framework considering on premise legacy applications as baseline for functionality. Functional Testing will include testing the functionality of the application from UI, validating interfaces and its interaction with the other systems as applicable. Only applications identified for modernization will be in scope for testing. Decommissioned applications are not in scope for testing.

As part of this, testing team will review and analyze the application requirements document. Exploratory testing will also be used to understand the functionality of existing legacy applications. Test scenarios and test cases will be created based on the analysis. All critical test artifacts shall be reviewed and signed off by Analysts / Application owners as applicable.

Smoke test suite will be created for each application and updated as the project progresses. Smoke tests will be executed during the project for each build and will be integrated with the build process for continuous integration purposes.

On successful completion of smoke tests, team will validate the functionality of the application by executing functional test cases. Any defects found during this process will be reported in VSTS. Testing team will triage and track defects to closure per process outlined in this document.

Regression execution will be planned for each Sprint based on the availability of the build of respective applications.

## Application testing scope will include:

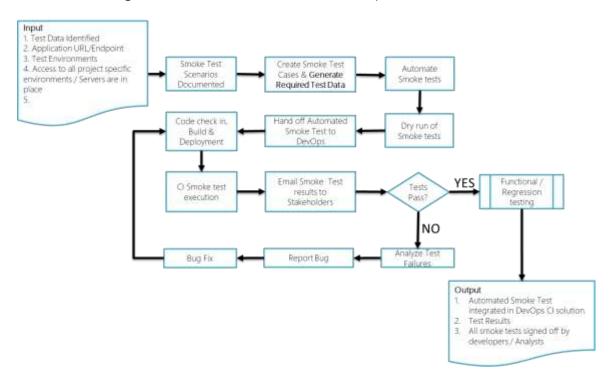
- Smoke Testing (part of Continuous Integration)
- > Functional testing
  - o UI & Business rules validation
  - o Services Testing wherever applicable
- Comparison/Parallel testing between Legacy and new applications
- > Database validation for all critical functionality
- > End to End Testing based on critical functional flows of critical applications
- Exploratory Testing
- > Automated Regression Testing

#### 3.1.1.1 Smoke Testing

Smoke testing comprises of a suite of test cases identified to validate the critical functionalities of the application. Smoke tests will be integrated as part of the build process where applicable and executed on builds identified on identified environments. Intention of Smoke tests is to identify issues early in the lifecycle and validate the readiness of the build for further exhaustive functional testing and regression testing.

Lifecycle of Smoke testing is outlined as below. Key features of the smoke testing process are:

- Integrated with build
- Continuous updates as project progresses
- Publishing of automated smoke tests results report



All smoke tests will be agreed upon by Developers/Analysts and will be automated.

#### Process outline

- > Team will identify the Smoke Test scenarios and prepare required test data
- > Team will automate Smoke test scenarios identified
- > Smoke test execution will automatically start once a new build is pushed to the QA environments
- Smoke Test results will be published to DirectNet Team via automated Emails
- ➤ Based on success of smoke tests, functional testing will begin
- In case of any failure Test team will investigate and re-execute the failed cases where applicable
- Development team will analyze the failures and deploy a build with code fix (if applicable)
- Smoke tests will be triggered as part of the new build

#### 3.1.1.2 Functional Testing

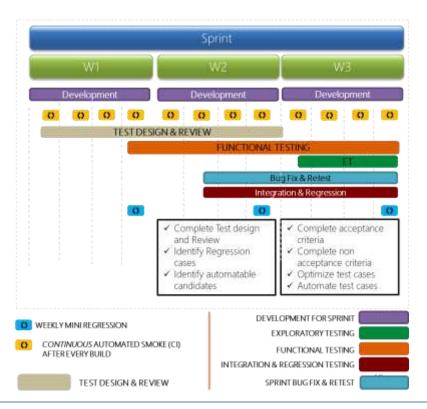
Functional testing will be performed to validate the functions of application are working as per documented requirements. This will be performed using a set of identified test data as input and expected results. For most applications, expected results will be documented based on the behavior of the existing legacy application.

Signed off requirements document will be used as the basis in conjunction with the user story defined in VSTS. Acceptance criteria defined in the user stories will be used as the guideline to prioritize the testing to ensure timely closure of user stories.

Test data requirements will be discussed with the Scrum master during the sprint planning meeting. Based on the test data requirements test team will coordinate with respective analysts / developers to identify the test data.

All defects identified during functional testing phase will be reported in the VSTS and tracked to closure by testing team. Prior to sprint closure, all Critical and High bugs need to be closed for the user story to be closed.

Functional testing will be performed early in the sprint from week 1 as soon as testable code is deployed to the environment. Exploratory testing will also be used to uncover any issues that are not part of documented requirements. Automation will be leveraged based on the build readiness and build deployment timing.



## 3.1.1.2.1 Functional testing: User Interface and Business rules

#### User Interface (UI)

UI validations will be based on the documented UI rules / validations in the User story / requirement document

Some of the validations that will be part of UI are:

- o Screen layout
- o Navigation
- o Usability
- o Data integrity
- o Field types
- Field validations

#### Business Rules

Business rules validation will be based on the documented business rules in the User story / requirements

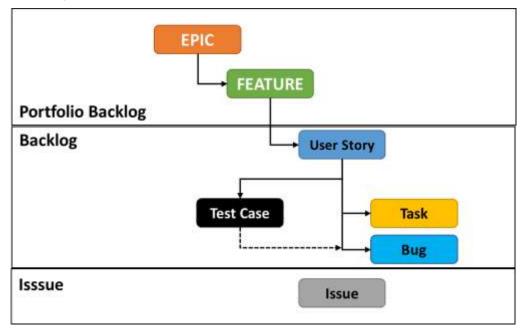
All business rules will be validated for core functionality and variations thereof to ensure functional coverage. All variations will be converted to test cases and test data identified. An optimum number of variations will be accommodated in the test cases to ensure optimum test coverage.

## 3.1.1.2.2 Functional testing: Services

Web services Testing is a testing of Services and its protocols like SOAP & REST. The following activities are planned as part of services testing:

- o Understand purpose of web service
- o Determine the dependencies of web service w.r.t to other applications
- o Determine the XML request and Response
- o Prepare test scenarios based on requirements
- o Identify test data required to build XML and determine expected results
- o Fiddle tool will be utilized for manual execution of sending requests and validating response
- Automation will be performed using v4 Services testing for XML based services
- o For JSON based services, C# based solution will be utilized
- o Identify the Negative Scenarios and execute tests for negative scenarios
- o Diagram to be updated

#### 3.1.1.3 Traceability in VSTS



- > VSTS will be used as the repository of all project related work items
- > All test cases will be linked to user stories and bugs to establish end to end traceability
- > All testing related activities related to user stories will be tracked using Task work items
- ➤ All bugs will be reported in VSTS and linked to user story

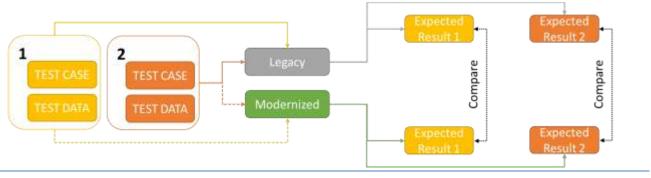
#### 3.1.1.4 Comparison / Parallel Testing

Direct Net project is migration of legacy applications to New system, Goal is to have the same look and feel as legacy applications with enhanced infrastructure and scalable systems.

Comparison/Parallel Testing is verifying compatibility, strength & weakness of the newly developed system with the old system. This is to ensure that when customer is moving to new system no data, information, functionality is lost.

QA team will compare the results between legacy and new systems. The approach of comparison testing involves comparing UI content, files, folders, data and information.

The below image demonstrates the parallel/Comparison testing at a high level



#### 3.1.1.5 Database validations

Database testing/Back-end testing is performed to check the impact of back-end database operation on front-end web application and vice versa. Once test data is analyzed, QA Team will validate whether data flow in between UI and database is consistent.

High level approach for database validations:

- o Validate critical data fields in the database based on business scenarios performed from the front end
- o Validate data integrity by performing negative testing from front end and ensure data is not saved / updated
- o Verification of business rules and logic with respect to database as mentioned in Requirements documents
- o Validate critical data fields persistence from services testing and validate data consistency between XML and database
- o Diagram to be updated

#### 3.1.1.6 End to End Testing

End to End testing is performed to identify system dependencies and to ensure that the right information is passed between various applications external to DirectNet suite of applications

Tests are designed based on the dependencies specified in the requirement document. End to end test scenarios are created for critical business scenarios. Any coordination that may be required to validate the end to end scenarios on other applications will be notified to respective application teams.

DirectNet testing team will not be validating the functionality of applications outside the realm of DirectNet project.

## 3.1.1.7 Exploratory Testing

Exploratory testing is performed to explore the Application to uncover defects which are hidden and have not captured in functional specifications. Exploratory testing can initially provide testers with domain and operational knowledge of the application, along with determining areas that might require additional functional tests.

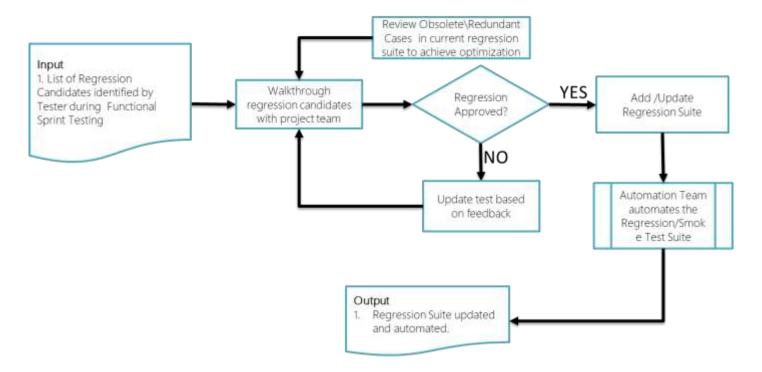
Testers perform a hands-on approach in which minimum planning and maximum execution is done specifically for the applications where no or poor specifications and time is severely limited.

Test team will be performing exploratory testing in last week of Sprint. Test team runs random ad hoc tests to see where exactly the application breaks and finds out hidden defects between integrated parts of the application.

#### 3.1.1.8 Automated Regression testing

Regression testing is performed to verify that either a code fix or newly added features are affecting previous functionality of the application. Test team reruns the functional tests in regression phase to ensure already existing functionality is not disturbed.

Regression tests are designed during the test case design by the team. Impact analysis with the project team will help determine the scope of the regression test runs.



#### Mini Regression:

Mini regression is regression of critical and high priority cases, identified by the Test team. This is a subset of full regression test suite. It is also focused on changes made for features in the current week to make sure previous functionality is not broken for every build deployed. Test team will plan to execute two cycles of mini regression in a 3-week sprint.

## Full regression:

Full regression will be executed in the last week, once in a Sprint. It is focused on all the features deployed in that sprint. QA Team identifies the regression candidates while writing functional scenarios and will be automated using the automation Framework.

Regression suites will be updated regularly for any changes in Application Functionality or flows.

#### Regression Automation Activities:

- > Identify regression test cases which can be automated from Signed Off Functional Test suite
- > Test Data preparation
- ➤ Define test scripts
- > Review test scripts and test data
- > Validate test scripts
- > Dry run of Automated test scripts
- Fix any issues in Dry run
- ➤ Execute Automated Regression and Smoke Tests
- ➤ Publish Automation Regression results
- ➤ Update Automated scripts for any fixes / updates
- > Optimize the regression test suite for any duplicate cases
- > Continuous regression and Optimization.

#### How to identify regression scenarios:

- Include cases which verify the core functionality of application.
- > Scenarios which have failed during functional testing.
- > Scenarios which are critical to business.
- > Scenarios which have undergone changes recently.
- > Scenarios which deal with third party systems or Integration touch points.
- > Negative scenarios or real-time scenarios which are mostly used by client.
- Email Transactions / Scenarios which will trigger alternate other flows in the system.
- Discuss with Application Owner and understand the Risks and High priority scenarios.

## 3.2 Testing types Out of Scope

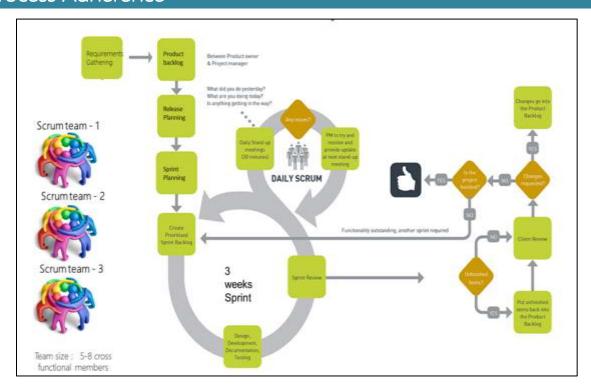
- Unit testing
- Performance testing
- Load/Stress testing
- ➤ User Acceptance Testing
- Security testing

# 3.3 Test Activities in-Scope

- > Participate in requirement walkthroughs for the Release / Sprint
- > Task Definition, estimation and assignment during Sprint planning
- ➤ Analysis of user story and test scenarios creation
- Create test cases based on test scenarios
- > Test Scenario/Cases reviews and signoff from Analysts / Application Owners (where applicable)

- Execute functional and regression test cases and Test failure analysis
- > Execute Smoke and End to End test cases
- > Perform parallel testing to compare functionality between legacy and modernized application
- > Test execution results review and signoff from Analysts / Application Owners (where applicable)
- > Test signoff from Analysts / Application Owners (where applicable)
- > Automate Smoke and Regression test cases
- > Report bugs, coordinate triage and track bugs to closure
- > Provide feedback during Sprint review and retrospective meeting
- > Automated regression and CICD execution using automation Framework
- > Setup testing dashboard
- > Publish status reports based on identified frequency

# 4. Process Adherence



Phase	Key Activities	Output	Location / Mode
Discovery Phase	<ul> <li>Application analysis &amp; Review</li> <li>Release planning</li> <li>Application walkthroughs</li> <li>Product backlog Grooming</li> </ul>	<ul> <li>Application requirements document         Signed off document</li> <li>Test Strategy</li> <li>Release backlog</li> <li>Requirements Clarification log</li> <li>Signed off Product backlogs</li> </ul>	Maintained in VSTS.
Sprint Planning	Sprint Planning     meeting	<ul> <li>User stories are documented in VSTS</li> <li>Test Strategy</li> <li>User Stories planned for the sprint as per capacity</li> <li>Story Points and estimations for the User Stories in the current sprint</li> </ul>	Maintained in VSTS

Phase	Key Activities	Output	Location / Mode
Sprint Activities	<ul> <li>Daily Scrum meetings</li> <li>Execution report</li> <li>Timesheets</li> <li>Update project status on Daily Basis</li> <li>Update project status on Weekly basis</li> </ul>	<ul> <li>Execution Tracking Report:         <ul> <li>Execution Metrics</li> <li>Defect Trend Metrics</li> <li>Dashboard</li> </ul> </li> <li>Burn down chart reports</li> <li>Daily Status Report</li> </ul>	Reports maintained in Dashboard / SharePoint / shared drive
	<ul> <li>Test cases Review signoff</li> <li>Test case design</li> <li>Test data</li> <li>Test data signoff</li> <li>Automation Test cases scripts guidelines</li> </ul>	<ul> <li>Signoff document</li> <li>Test cases documents</li> <li>Test data document</li> <li>Signoff on Automation test cases</li> </ul>	Tracked from VSTS
	<ul><li>System Testing</li><li>Full Regression Testing</li><li>Bug Report</li><li>Automation</li></ul>	<ul> <li>System test result report</li> <li>Full Regression test result report</li> </ul>	Reports maintained in Dashboard / SharePoint / shared drive
Sprint Retrospective	Meeting with scrum teams along with scrum master	<ul> <li>Lesson learnt from last sprint. Things which went well captured and repeated in the next sprint.</li> <li>For things which didn't go well, team to brainstorm in this meeting and try to come up with possible workarounds such that the impact of similar issues can be minimized in future sprints</li> </ul>	Maintained in VSTS

# 5. Metrics

Metric	Formula	Norm
Bug Slippage (Regression – USER)	Total Bugs found in USER regression testing that should	< 3%
	have been caught prior to USER (by test team) X 100 /	
	Total Bugs found in testing prior to USER (by test team)	
Bug Slippage (PROD)	Total Bugs found in PROD that should have been caught	< 2%
	prior to PROD X 100 / Total Bugs found in testing prior to	
	PROD (by test team + others)	
Invalid bugs (Duplicate + As	Total INVALID bugs found in current phase (by test team)	< 5%
Designed)	X 100 / Total Bugs found in current phase (by test team)	

Metric	Formula	Norm
Requirements Coverage	Total documented testable requirements covered by test	> 95%
	cases X 100 / Total documented testable requirements	
Automation %	Total test cases automated X 100 / Total test cases created	> 90%
	(manual + automation)	
Automated execution %	Total automated test cases executed X 100 / Total test	> 90%
	cases executed (manual + automation)	
Test execution coverage %	Total test cases executed X 100 /	100%
	Total test cases planned to be executed (manual +	
	automation)	
Test Execution Productivity (Test	Number of test cases executed / Effort in person hours	>=4
cases per person per Day)		
Test Design Productivity (Test	Number of test cases designed / Effort in person hours	>=3
cases per person per Day)		

# Key Success Factors

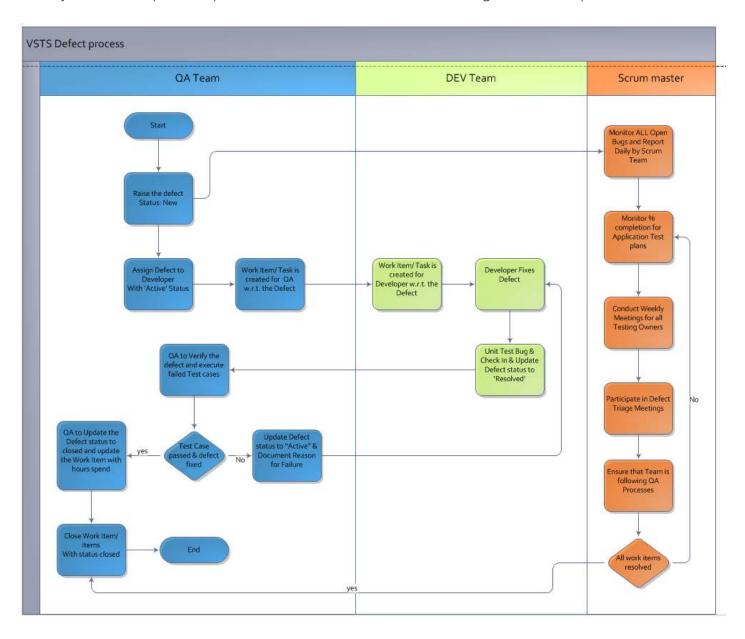
- ♦ Ensuring optimum functional coverage for all user stories / features
- ♦ Automation of automatable candidates to maximum possible extent
- ♦ Ensure all critical or showstopper defects are closed prior to end of sprint
- ♦ Ensure testing is complete for Sprint and user stories closed by end of sprint

# 7. Dependencies

- ♦ Detailed and clear requirements in user story / requirements document. Where possible testing team will perform exploratory testing to uncover undocumented requirements. All acceptance criteria should be completed prior to beginning of the sprint
- ◆ Last minute changes to Requirements and GUI within a sprint would interrupt testing time lines for the sprint and overall project
- ♦ Availability of environment plays a key factor in completion of testing activities including automation
- ◆ Early build deployments on local / DEV / QA environments should be targeted to enable early testing. To meet this, stories should be broken down to a level where it can be delivered early
- ♦ Stability of builds is an important factor for success of functional and regression testing
- ♦ Unit testing should be performed prior to build and deployment to environments
- ♦ Delays in delivering user stories to the QA team will delay the closure of user stories and may end up moving the user stories to next sprint. This will impact next sprint's testing capacity as well
- ♦ QA team will work on QA/test environment and when possible in staging environment however to facilitate early testing, QA team will work on developer's local box / dev environment when necessary
- ♦ Scrum master is responsible to validate all acceptance criteria are met prior to closure of user stories
- ♦ Development team and Analyst team will assist QA team in identifying test data for the sprint
- ❖ All dependencies including batch jobs are deployed to test environment prior to functional testing. Where necessary stubs / mocks need to be deployed to pursue testing

# 8. Defect Management Process

The lifecycle below depicts the process to be followed for defect tracking and follow-up



# 9. Roles and Responsibilities

Role	Responsibility
·	Responsible for enacting Scrum values and practices  Mensures that team is fully functional and productive.  Conducts Daily scrum and Retrospective meetings.  Tries to resolve the road blocks / impediments.  Works with Application Owner / Stakeholders on grooming Release backlog and Release planning.  Coordinates and facilitates Sprint planning meeting and Demo with the Application Owner.
•	Enables close cooperation across all roles and functions.
QA Team	<ul> <li>Participate in requirements review and analysis; Interface between test and project teams</li> <li>Prepare test strategy and plan and work with GEICO manager in estimations based on project needs</li> </ul>
•	<ul> <li>Design Test scenarios, cases and get it reviewed by Application owners and Stakeholders.</li> <li>Execute Functional test cases and publish results.</li> <li>Report defects in case of deviation from expected behavior.</li> <li>Identify Smoke and Regression cases and automate them.</li> <li>Execute Smoke and Regression automated cases periodically.</li> <li>Provide periodic status updates to GEICO project manager and VM delivery manager.</li> <li>Identify and manage changes, risks/issues within the project and work out mitigation plans.</li> </ul>

# 10. Reports

Report Name Frequency		Description
Daily Status Report	Daily	<ul> <li>Tasks Completed for the Day <ul> <li>Execution summary</li> <li>Bug summary</li> </ul> </li> <li>Impediments</li> <li>Issues / Concerns</li> <li>Risks</li> </ul>
Weekly Status Report	Weekly	<ul> <li>Accomplishments for the week <ul> <li>Execution summary</li> <li>Bug summary</li> </ul> </li> <li>Plan for next week</li> <li>Impediments</li> <li>Issues / Concerns</li> <li>Risks</li> </ul>
Test Summary Report	Per Release	<ul> <li>Release level Test execution summary</li> <li>Issues encountered during execution</li> <li>Bug Summary</li> <li>Things that went well</li> <li>Things that can be improved</li> </ul>

# 11. Glossary

Term	Definition
Smoke Testing	Smoke Testing is a preliminary to further testing, which should reveal simple failures that are severe enough to reject software release or a build.
System Testing	System testing of software is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements.
Functional Testing	Functional Testing is a testing based on an analysis of the specification of the functionality of a component or system.
GUI Testing	GUI software testing is the process of testing a product that uses a graphical user interface, to ensure it meets its written specifications
Test Plan	A document of the test planning process detailing the test strategy, scope of testing, the test environment, resources required, entry and exit criteria, test schedule, risk identification and mitigation strategy, deliverables, the test case design techniques, and test measurement techniques to be used, and the rationale for their choice.
Test Case	A test case is a set of conditions or variables under which a tester will determine if a requirement or use case upon an application is partially or fully satisfied
Regression Testing	Regression testing is re-testing after fixes or modifications of the software or its environment
Bug	A software Bug (or just "bug") is an error, flaw, mistake, failure, or fault in a computer program that prevents it from behaving as intended
Test Automation	A process for converting the manual test cases to automated scripts that can be executed without manual interventions.
Happy Path Testing	Happy path testing is a well-defined test case that uses known input, that executes without exception and that produces an expected output
Boundary Value Analysis	Boundary value analysis is software testing design technique to determine test cases covering off-by-one errors. The boundaries of software component input ranges are areas of frequent problems.
Ad-hoc Testing	Ad-hoc testing is a process of random testing. It means testing an application without test scripts. It requires significant knowledge of the AUT.
Negative Path Testing	Negative Path testing is a process of testing software for exception or error conditions. Negative data is used to execute this type of test cases.
Functional Requirement	A functional requirement defines a function of a software-system or its component
Non-Functional Requirements	Non-functional requirements are requirements which specify criteria that can be used to judge the operation of a system, rather than specific behaviors.

# 12. Appendix – List of DirectNet Applications (as of 12/08/2017)

#	Web Application	Web Application URL
1	BusinessApps/ADCheckWritingApp	http://directnet.geico.net/BusinessApps/ADCheckWritingA
		pp/Default.aspx
2	BusinessApps/AutomatedDispatch	http://directnet.geico.net/BusinessApps/AutomatedDispatc
2	D : A (D : 1	h
3	BusinessApps/Businessplanexplorer	http://directnet.geico.net/BusinessApps/Businessplanexplorer
4	BusinessApps/CallBack	http://directnet.geico.net/BusinessApps/CallBack
5	BusinessApps/CheckInformation	http://directnet.geico.net/BusinessApps/CheckInformation
6	BusinessApps/ClaimsTrainingSupport/TrainingSupportWS	http://directnet.geico.net/BusinessApps/ClaimsTrainingSupport/TrainingSupportWS
7	BusinessApps/ClientApps/MOATMaint enance	http://directnet.geico.net/BusinessApps/ClientApps/MOAT Maintenance
8	BusinessApps/clientbrowsersummary/ ClientAdd/Default.aspx	http://directnet.geico.net/BusinessApps/clientbrowsersummary/ClientAdd/Default.aspx
9	BusinessApps/clientbrowsersummary/	http://directnet.geico.net/BusinessApps/clientbrowsersum
	ClientError/Default.aspx	mary/ClientError/Default.aspx
10	BusinessApps/clientbrowsersummary/ ClientObjectRelation	http://directnet.geico.net/BusinessApps/clientbrowsersummary/ClientObjectRelation
11	BusinessApps/clientbrowsersummary/c	http://directnet.geico.net/BusinessApps/clientbrowsersum
	lientportal	mary/clientportal
12	BusinessApps/clientbrowsersummary/E	http://directnet.geico.net/BusinessApps/clientbrowsersum
13	ndvHelp BusinessApps/ClientCityCodeLookupA	mary/EndvHelp http://directnet.geico.net/BusinessApps/ClientCityCodeLoo
15	pp	kupApp
14	BusinessApps/COMPLAINT	http://directnet.geico.net/BusinessApps/COMPLAINT
15	BusinessApps/ConsolidatedAgentEntry	http://directnet.geico.net/BusinessApps/ConsolidatedAgentEntry
16	BusinessApps/CPPM	http://directnet.geico.net/BusinessApps/CPPM
17	BusinessApps/CSRCallDriver	http://directnet.geico.net/BusinessApps/CSRCallDriver
18	BusinessApps/DataSanitization/SanEm	http://directnet.geico.net/BusinessApps/DataSanitization/S
	ergency	anEmergency
19	BusinessApps/DataSanitization/UnSan Data	http://directnet.geico.net/BusinessApps/DataSanitization/UnSanData
20	BusinessApps/DetailedClaimsDB	http://directnet.geico.net/BusinessApps/DetailedClaimsDB

#	Web Application	Web Application URL
21	BusinessApps/DirectFax/ViewConfirmat ionData.aspx	http://directnet.geico.net/BusinessApps/DirectFax/ViewConfirmationData.aspx
22	BusinessApps/DLL	http://directnet.geico.net/BusinessApps/DLL
23	BusinessApps/DMCC_Dashboard	http://directnet.geico.net/BusinessApps/DMCC_Dashboard
24	BusinessApps/DUIS_Support	http://directnet.geico.net/BusinessApps/DUIS_Support
25	BusinessApps/DUIS_Support/Administration	http://directnet.geico.net/BusinessApps/DUIS_Support/Administration
26	BusinessApps/DUIS_Troubleshooter	http://directnet.geico.net/BusinessApps/DUIS_Troubleshoo ter
27	BusinessApps/ElectronicBillReview	http://directnet.geico.net/BusinessApps/ElectronicBillRevie w
28	BusinessApps/ELS	http://directnet.geico.net/BusinessApps/ELS
29	BusinessApps/ETAS	http://directnet.geico.net/BusinessApps/ETAS
30	BusinessApps/ETAS/administration/me dium	http://directnet.geico.net/BusinessApps/ETAS/administration/medium
31	BusinessApps/EventMgmtTools	http://directnet.geico.net/BusinessApps/EventMgmtTools
32	BusinessApps/ExceedATS	http://directnet.geico.net/BusinessApps/ExceedATS
33	BusinessApps/ExperienceCalc	http://directnet.geico.net/BusinessApps/ExperienceCalc
34	BusinessApps/FISQuery	http://directnet.geico.net/BusinessApps/FISQuery
35	BusinessApps/Forms/BUNDLForms/M C460.aspx	http://directnet.geico.net/BusinessApps/Forms/BUNDLForms/MC460.aspx
36	BusinessApps/Forms/content/Program _Override_(MC370).asp	http://directnet.geico.net/BusinessApps/Forms/content/Program_Override_(MC370).asp
37	BusinessApps/Forms/content/WorkReq uest1/WrkReqdefault.aspx	http://directnet.geico.net/BusinessApps/Forms/content/WorkRequest1/WrkReqdefault.aspx
38	BusinessApps/Forms/NBUSForms/nbus default.aspx	http://directnet.geico.net/BusinessApps/Forms/NBUSForms/nbusdefault.aspx
39	BusinessApps/Forms/RestrictedInternet Site	http://directnet.geico.net/BusinessApps/Forms/RestrictedInternetSite
40	BusinessApps/Forms/ServerTAPackage	http://directnet.geico.net/BusinessApps/Forms/ServerTAPackage
41	BusinessApps/Forms/TapeMailer	http://directnet.geico.net/BusinessApps/Forms/TapeMailer
42	BusinessApps/GeicoSelectionTests	http://directnet.geico.net/BusinessApps/GeicoSelectionTest s
43	BusinessApps/HelpDesk	http://directnet.geico.net/BusinessApps/HelpDesk
44	BusinessApps/HelpDesk/AppServerAd min	http://directnet.geico.net/BusinessApps/HelpDesk/AppServerAdmin

#	Web Application	Web Application URL
45	BusinessApps/HelpDesk/COMMO/Co	http://directnet.geico.net/BusinessApps/HelpDesk/COMM
	mmo.aspx	O/Commo.aspx
46	BusinessApps/HelpDesk/securityaccess	http://directnet.geico.net/BusinessApps/HelpDesk/security
	/SecurityAccess.aspx	access/SecurityAccess.aspx
47	BusinessApps/HelpDesk/SecurityApproval/SecurityApproval.aspx	http://directnet.geico.net/BusinessApps/HelpDesk/Security Approval/SecurityApproval.aspx
48	BusinessApps/HelpDesk/Survey	http://directnet.geico.net/BusinessApps/HelpDesk/Survey
49	BusinessApps/Insp_Referral	http://directnet.geico.net/BusinessApps/Insp_Referral
50	BusinessApps/Insp_Sites	http://directnet.geico.net/BusinessApps/Insp_Sites
51	BusinessApps/IQDirect	http://directnet.geico.net/BusinessApps/IQDirect
52	BusinessApps/IQDirect/IQTeams	http://directnet.geico.net/BusinessApps/IQDirect/IQTeams
53	BusinessApps/JobPost	http://directnet.geico.net/BusinessApps/JobPost
54	BusinessApps/LienholderCancTermSea	http://directnet.geico.net/BusinessApps/LienholderCancTer
	rch	mSearch
55	BusinessApps/MA_RMV- DMVR_Request	http://directnet.geico.net/BusinessApps/MA_RMV-DMVR_Request
56	BusinessApps/MISReschedule	http://directnet.geico.net/BusinessApps/MISReschedule
57	BusinessApps/MOATAgencyDesktopM	http://directnet.geico.net/BusinessApps/MOATAgencyDesk
	gmt	topMgmt
58	BusinessApps/MOATXref/MoatClientG	http://directnet.geico.net/BusinessApps/MOATXref/MoatCl
F0	eostanMap	ientGeostanMap
59	BusinessApps/MOATXSellUtility	http://directnet.geico.net/BusinessApps/MOATXSellUtility
60	BusinessApps/MRB	http://directnet.geico.net/BusinessApps/MRB/default.aspx
61	BusinessApps/MRB	http://directnet.geico.net/BusinessApps/MRB/crystalquartz panel.axd
62	BusinessApps/MRSI	http://directnet.geico.net/BusinessApps/MRSI
63	BusinessApps/owa	http://directnet.geico.net/BusinessApps/owa
64	BusinessApps/owq	http://directnet.geico.net/BusinessApps/owq
65	BusinessApps/owq/Loader	http://directnet.geico.net/BusinessApps/owq/Loader
66	BusinessApps/owq/LoaderMMD	http://directnet.geico.net/BusinessApps/owq/LoaderMMD
67	BusinessApps/PolicyPaymentRestrUpd	http://directnet.geico.net/BusinessApps/PolicyPaymentRestrUpd
68	BusinessApps/PolicyRestore	http://directnet.geico.net/BusinessApps/PolicyRestore
69	BusinessApps/R1Requistion/npmcdefa	http://directnet.geico.net/BusinessApps/R1Requistion/npm
	ult.aspx	cdefault.aspx
70	BusinessApps/RVInternet/RVInternetQ ueue	http://directnet.geico.net/BusinessApps/RVInternet/RVInternetQueue
	ucuc	Ποιζασασ

#	Web Application	Web Application URL
71	BusinessApps/SAS/V8Link	http://directnet.geico.net/BusinessApps/SAS/V8Link
72	BusinessApps/SBTB	http://directnet.geico.net/BusinessApps/SBTB/default.aspx
73	BusinessApps/Selectiontests	http://directnet.geico.net/BusinessApps/Selectiontests
74	BusinessApps/StateRefs	http://directnet.geico.net/BusinessApps/StateRefs
75	BusinessApps/StateRefs/StateRefsCook ie	http://directnet.geico.net/BusinessApps/StateRefs/StateRefsCookie
76	BusinessApps/SubroDemandLog	http://directnet.geico.net/BusinessApps/SubroDemandLog
77	BusinessApps/SystemsErrorReport	http://directnet.geico.net/BusinessApps/SystemsErrorReport
78	BusinessApps/SystemsSecurityE-Forms	http://directnet.geico.net/BusinessApps/SystemsSecurityE-Forms
79	BusinessApps/TNOS	http://directnet.geico.net/BusinessApps/TNOS/TNOS.aspx
80	BusinessApps/UmbrellaFullQuote	http://directnet.geico.net/BusinessApps/UmbrellaFullQuote
81	BusinessApps/UmbrellaUtilities	http://directnet.geico.net/BusinessApps/UmbrellaUtilities
82	common/SpellServer	http://directnet.geico.net/common/SpellServer
83	CSMCollector	http://directnet.geico.net/CSMCollector
84	CSRCallDriver	http://directnet.geico.net/CSRCallDriver
85	DBService	http://directnet.geico.net/DBService
86	duisdocs	http://directnet.geico.net/duisdocs
87	Forcedownload	http://directnet.geico.net/Forcedownload
88	HumanResources/CareerChoices/Asse ssments/Assessment.aspx	http://directnet.geico.net/HumanResources/CareerChoices/Assessments/Assessment.aspx
89	HumanResources/jobpost	http://directnet.geico.net/HumanResources/jobpost
90	HumanResources/MgmtDevTracking	http://directnet.geico.net/HumanResources/MgmtDevTracking
91	ManagementResources/ComboFlash/ Admin	http://directnet.geico.net/ManagementResources/ComboFlash/Admin
92	ManagementResources/ComboFlash/ Management	http://directnet.geico.net/ManagementResources/ComboFlash/Management
93	BusinessApps/MOATAgencyDesktopM gmt	http://directnet.geico.net/BusinessApps/MOATAgencyDesk topMgmt
94	BusinessApps/MOATXSellUtility	http://directnet.geico.net/BusinessApps/MOATXSellUtility
95	OurBusiness/MOAT/MotorClub/ers/ap ps	http://directnet.geico.net/OurBusiness/MOAT/MotorClub/ers/apps
96	OurBusiness/Sales/ScoreCard/ScoreCard.htm	http://directnet.geico.net/OurBusiness/Sales/ScoreCard/ScoreCard.htm

#	Web Application	Web Application URL
97	OurBusiness/SystemStatus/SysStatCale ndar	http://directnet.geico.net/OurBusiness/SystemStatus/SysStatCalendar
98	PhoenixLink	http://directnet.geico.net/PhoenixLink
99	RegionsOffices/Iowa/Coralville/db/common	http://directnet.geico.net/RegionsOffices/Iowa/Coralville/db/common
100	RegionsOffices/Iowa/Coralville/forms	http://directnet.geico.net/RegionsOffices/Iowa/Coralville/forms
101	RegionsOffices/Iowa/Coralville/hr/term	http://directnet.geico.net/RegionsOffices/Iowa/Coralville/hr/term
102	RegionsOffices/Iowa/Coralville/supervi sor/move	http://directnet.geico.net/RegionsOffices/Iowa/Coralville/supervisor/move
103	RegionsOffices/Region4	http://directnet.geico.net/RegionsOffices/Region4
104	RegionsOffices/Region4/Common_Forms/AC98RefundRequest	http://directnet.geico.net/RegionsOffices/Region4/Commo n_Forms/AC98RefundRequest
105	RegionsOffices/Region4/Common_Forms/CashVoucher	http://directnet.geico.net/RegionsOffices/Region4/Commo n_Forms/CashVoucher
106	RegionsOffices/Region4/Common_Forms/ManualQuote	http://directnet.geico.net/RegionsOffices/Region4/Commo n_Forms/ManualQuote
107	RegionsOffices/Region4/Service/PMT	http://directnet.geico.net/RegionsOffices/Region4/Service/PMT
108	RegionsOffices/Region4/StaffServices/ Planning/goalgrading	http://directnet.geico.net/RegionsOffices/Region4/StaffSer vices/Planning/goalgrading
109	RegionsOffices/Region4/StaffServices/ Planning/SAS/SASReader	http://directnet.geico.net/RegionsOffices/Region4/StaffSer vices/Planning/SAS/SASReader
110	RegionsOffices/Region5/underwriting/t x_mh	http://directnet.geico.net/RegionsOffices/Region5/underwriting/tx_mh
111	RegionsOffices/Region6/CBSystem/CB Request.aspx	http://directnet.geico.net/RegionsOffices/Region6/CBSyste m/CBRequest.aspx
112	RegionsOffices/Region6/Claims/CSR/M onitor	http://directnet.geico.net/RegionsOffices/Region6/Claims/CSR/Monitor
113	RegionsOffices/Region6/PIP	http://directnet.geico.net/RegionsOffices/Region6/PIP
114	RegionsOffices/Region6/QualityCheck Queue	http://directnet.geico.net/RegionsOffices/Region6/QualityCheckQueue
115	RegionsOffices/Region6/SIU/ClinicInsp	http://directnet.geico.net/RegionsOffices/Region6/SIU/Clini clnsp
116	RegionsOffices/RegionI	http://directnet.geico.net/RegionsOffices/RegionI
117	Services/ADCheckWriting/ADCW.asmx	http://directnet.geico.net/Services/ADCheckWriting/ADCW .asmx

#	Web Application	Web Application URL
118	Services/DUIS   DUIS Front End	http://directnet.geico.net/Services/DUIS/dn2_getuserinfo.as
110	· /DI IIC /DOCC	mx
119	Services/DUIS/DOCS	http://directnet.geico.net/Services/DUIS/DOCS
120	Services/DUIS_Support	http://directnet.geico.net/Services/DUIS_Support
121	Services/GeoDataWebService/GeoWe	http://directnet.geico.net/Services/GeoDataWebService/Ge
122	bService.asmx Services/ISCS/IscsService.asmx	oWebService.asmx http://directnet.geico.net/Services/ISCS/IscsService.asmx
123	Services/RENTALWS/RENTALWS.asmx	http://directnet.geico.net/Services/RENTALWS/RENTALWS.asmx
124	Services/Reporting/InterviewTracking	http://directnet.geico.net/Services/Reporting/InterviewTrac
		king
125	Services/UmbrellaBusinessService	http://directnet.geico.net/Services/UmbrellaBusinessService
126	Services/UmbrellaExceedService	http://directnet.geico.net/Services/UmbrellaExceedService
127	Services/UmbrellaIntegration	http://directnet.geico.net/Services/UmbrellaIntegration
128	Services/UmbrellaPrefillService	http://directnet.geico.net/Services/UmbrellaPrefillService
129	Services/UmbrellaUtilitiesService	http://directnet.geico.net/Services/UmbrellaUtilitiesService
130	SIU	http://directnet.geico.net/SIU
131	SIU/SICM	http://directnet.geico.net/SIU/SICM
132	SIU/SICMTRNG	http://directnet.geico.net/SIU/SICMTRNG
133	StaffDepartments/Actuarial/CAStat	http://directnet.geico.net/StaffDepartments/Actuarial/CASt
		at
134	StaffDepartments/Controller	http://directnet.geico.net/StaffDepartments/Controller
135	StaffDepartments/ISD/APD1/ClaimsSyst	http://directnet.geico.net/StaffDepartments/ISD/APD1/Clai
136	ems/ClaimsLetterExtract StaffDepartments/ISD/ADD1/ClaimsSyst	msSystems/PrinterTable/PrinterTableEntryPage.asp
150	StaffDepartments/ISD/APD1/ClaimsSyst ems/CRSPRT Reporting System	http://directnet.geico.net/StaffDepartments/ISD/APD1/ClaimsSystems/CRSPRT Reporting System
137	StaffDepartments/ISD/APD1/K344/Clai	http://directnet.geico.net/StaffDepartments/ISD/APD1/K34
	msRollupSystem/GCAD	4/ClaimsRollupSystem/GCAD/default.aspx
138	StaffDepartments/ISD/ssd/K650/PMO/	http://directnet.geico.net/StaffDepartments/ISD/ssd/K650/
	MSProjectPlanGenerator	PMO/MSProjectPlanGenerator
139	StaffDepartments/ISD/ssd/K650/PMO/	http://directnet.geico.net/StaffDepartments/ISD/ssd/K650/
140	MSProjectPlanG-Training	PMO/MSProjectPlanG-Training
140	StaffDepartments/QualityAdministration/IQ	http://directnet.geico.net/StaffDepartments/QualityAdminis tration/IQ
141	StaffDepartments/SOD/Networking/I3	http://directnet.geico.net/StaffDepartments/SOD/Networki
, , , ,	21/SystemStatus	ng/l321/SystemStatus

#	Web Application	Web Application URL
142	StaffDepartments/SOD/Networking/I3 26/ROS	http://directnet.geico.net/StaffDepartments/SOD/Networking/I326/ROS
143	StaffDepartments/SOD/Networking/I3 26/ROS/Admin	http://directnet.geico.net/StaffDepartments/SOD/Networking/I326/ROS/Admin
144	StaffDepartments/SOD/Networking/I3 57/swdist/FORMS/DistReq	http://directnet.geico.net/StaffDepartments/SOD/Networking/I357/swdist/FORMS/DistReq
145	StaffDepartments/SOD/Networking/I3 57/swdist/Info	http://directnet.geico.net/StaffDepartments/SOD/Networking/I357/swdist/Info
146	StaffDepartments/SOD/Networking/I3 57/swdist/msg	http://directnet.geico.net/StaffDepartments/SOD/Networking/I357/swdist/msg
147	StaffDepartments/SOD/Networking/I3 57/swdist/Radia	http://directnet.geico.net/StaffDepartments/SOD/Networking/I357/swdist/Radia
148	StaffDepartments/SOD/Networking/I3 57/swdist/sched	http://directnet.geico.net/StaffDepartments/SOD/Networking/I357/swdist/sched
149	StaffDepartments/SOD/OutputManage ment/I371	http://directnet.geico.net/StaffDepartments/SOD/OutputManagement/I371
150	StaffDepartments/SOD/OutputManage ment/I371/email_forms	http://directnet.geico.net/StaffDepartments/SOD/OutputManagement/I371/email_forms
151	StaffDepartments/SOD/OutputManage ment/l371/state_forms_ref	http://directnet.geico.net/StaffDepartments/SOD/OutputManagement/l371/state_forms_ref
152	StaffDepartments/SOD/SwitchingSyste ms	http://directnet.geico.net/StaffDepartments/SOD/Switching Systems
153	StaffDepartments/SOD/SwitchingSyste ms/WebRTD	http://directnet.geico.net/StaffDepartments/SOD/Switching Systems/WebRTD
154	StaffDepartments/StaffDev/Multitaskin gSimulation	http://directnet.geico.net/StaffDepartments/StaffDev/Multit askingSimulation
155	StaffDepartments/UPM	http://directnet.geico.net/StaffDepartments/UPM
156	StaffDepartments/UPM/IM/codes	http://directnet.geico.net/StaffDepartments/UPM/IM/codes
157	StaffDepartments/UPM/IM/codes/reas on	http://directnet.geico.net/StaffDepartments/UPM/IM/codes/reason
158	StaffDepartments/UPM/IM/Experience Calc	http://directnet.geico.net/StaffDepartments/UPM/IM/ExperienceCalc
159	StaffDepartments/UPM/IM/HI_PPO/HI PPOAdmin	http://directnet.geico.net/StaffDepartments/UPM/IM/HI_PPO/HIPPOAdmin
160	StaffDepartments/UPM/IM/Insp_Sites	http://directnet.geico.net/StaffDepartments/UPM/IM/Insp_ Sites
161	StaffDepartments/UPM/IM/MGram/M GramAdmin	http://directnet.geico.net/StaffDepartments/UPM/IM/MGram/MGramAdmin

#	Web Application	Web Application URL
162	StaffDepartments/UPM/IM/off_loc	http://directnet.geico.net/StaffDepartments/UPM/IM/off_lo
		С
163	StaffDepartments/UPM/IM/Reason	http://directnet.geico.net/StaffDepartments/UPM/IM/Reaso
		n
164	StaffDepartments/UPM/PM	http://directnet.geico.net/StaffDepartments/UPM/PM
165	Tadd	http://directnet.geico.net/Tadd/odbc.asp
166	TelAlert	http://directnet.geico.net/TelAlert
167	BusinessApps/LRExhibit	http://directnet.geico.net/businessapps/LRExhibits/