

# DevTest - CA AppTest/CA SV

Roadmap and Vision

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# Agenda

1

**DEVTEST (SV/APPTTEST) OVERVIEW**

2

**OVERALL STRATEGIC THEMES/GOALS**

3

**DEVTEST 10.0**

4

**THE NEAR FUTURE AND THE ROAD AHEAD**

5

**Q&A**

# CA Service Virtualization and Testing Solution (SV&T)

## DevTest

Industry leading foundation for companies to design, develop and release software with greater agility and higher quality

### CA APPLICATION TEST

*Allows for all types of testing of multi-tiered architectures at any layer*

### CA SERVICE VIRTUALIZATION

*Allows for Constraint-free Development and Testing of Software*

# Strategic Themes

## INNOVATION

New Customers and Markets

## EASE OF USE

Intuitive and Simple Workflows

## ENTERPRISE SCALE

Manage Total Cost of Ownership

## VALUE DRIVERS

### Intra-BU Product Integration

TDM/ARD/BlazeMeter Integrations

### Simplified User Experience

Persona Based UI to Meet Needs of Workflows with Different Levels of Complexity

### Enterprise Service Catalog

Enabling COE and Sharing in Dev & Test

### Integration APIs for CRUD

Allow Developers/QEs to Move Faster and Create Custom Integrations

### CD/CI Pipeline Integration

Plug-ins for CI/CD Tools (Jenkins, Gradle, TeamCity, ...)

### Enterprise-Class Management

Access Controls, Security, Clear ROI Reporting, License Management, Resource Management

### Integration with Developer Tools

IDE Plug-ins, In-memory/Self-Contained VS ("as code")

### Try and Buy

Standalone Trial Version of SVT

### Packaging for Cloud

Docker, AWS, Azure

### Vertical Solutions Expansion

SAP, SFDC, ...

### Seamless Migration Path

Individual → Work Group → Enterprise

# DevTest 10.0

GA: December 16<sup>th</sup>



# Major Features/Enhancements

Definition and MVP for SV Express

ARD/AppTest Integration

Support for Additional Data Protocol Handlers

Improved UX

# Features in 10.0

FEATURE NAME	FEATURE DESCRIPTION
SV: Create Tests from an Existing Virtual Service	Enables creating an AppTest baseline test case from an existing service.
SV: RR Pair Creation	Create virtual services and base line test cases directly from RR pairs in the Portal.
SV: Create Automation APIs for VS - SWAGGER 2.0	Enhanced Swagger 2.0 compliant Integration API to allow for the creation/configuration/maintenance of virtual services and test cases
SV: Create Virtual Service from WSDL	Create virtual services from a WSDL specification in the Portal
SV: Virtual Service Matching Information in Portal	Enhanced inspection view within the Portal of transactions processed by the VSE.
SV: Virtual Service Configuration	Enables the “reconfiguration” (e.g., base path, port number, name, ...) of an existing virtual service directly from the Portal. Eliminates the need to open the VSM in the Workstation.
SV: Create Virtual Service from SWAGGER 2.0 Specification	Full support for creating virtual services from a Swagger 2.0 design spec (Workstation only)
APT: Swagger 2.0 Import Wizard to Create API Tests	Enables creation of AppTest test cases from a Swagger 2.0 design spec (Workstation only)
APT: Swagger 2.0 Bulk Import to Create API Tests	Enables creation of AppTest test cases from multiple Swagger 2.0 design specs (Workstation only)
APT: Swagger 2.0 Sample Data Import to Drive API Tests	Enables creation of data sets from a Swagger 2.0 design spec (Workstation only)
MF: Add Support for CTG 9.2 and Below	Update our support for CTG to 9.2.
MF: AppTest Support For CICS in Portal from Capture	Create AppTest test cases directly from the CICS agent capture data. Invoke
MF: Add Transaction List to Copybook Mapping Tab	Usability enhancement when using the copybook payload.

# Portal and Workstation Enhancements

# Create Tests from an Existing Virtual Services

- Create baseline tests without having to re-record.
- Ensure consistent data scenarios between Virtual Services and Baseline tests

The screenshot displays the DevTest Portal interface. The main content area shows a table of Virtual Services. The table has columns for Actions, Project, Name, Grouping, and Description. The 'AutoBaseline' test is highlighted, and a context menu is open over it, showing options like 'Deploy', 'Download MAR', and 'Create Baseline Test'.

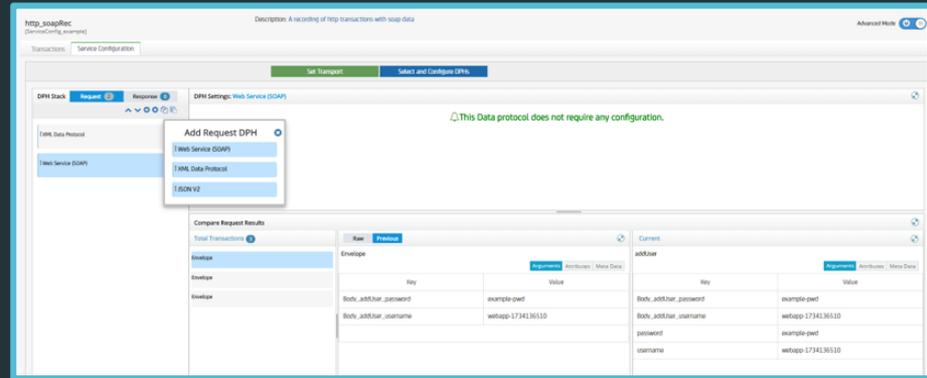
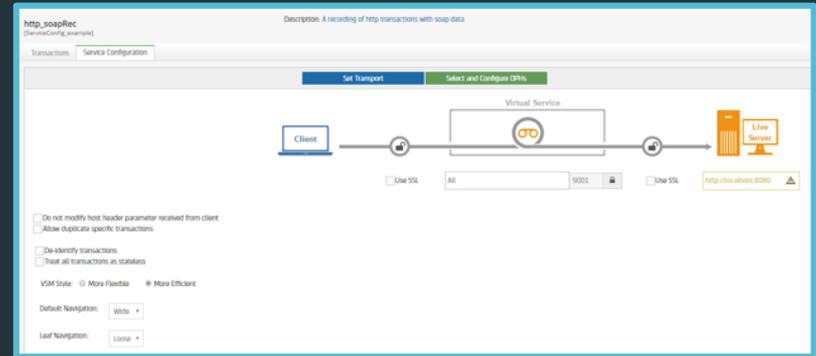
Actions	Project	Name	Grouping	Description
	Bank v6	data-driven-kioskV6		{{(ISA_PROJ_ROOT)}}/VirtualServices/V6Scenarios/kioskV6.urs
	Bank v6	imsConnectService		
	Bank v6	kioskV6		{{(ISA_PROJ_ROOT)}}/VirtualServices/V6Scenarios/kioskV6.urs
	Cars v9	cars-rest		
	Cars v9	loan-offers		
	Bank v5	data-driven-http-rest		
	Bank v5	http		{{(ISA_PROJ_ROOT)}}/VirtualServices/V5Scenarios/http.urs
	Bank v5	AutoBaseline		
	Deploy	WebServicesModel		{{(ISA_PROJ_ROOT)}}/VirtualServices/V6Scenarios/WebServicesModel.urs
	Download MAR	http-rest		
	Create Baseline Test	kioskV5		{{(ISA_PROJ_ROOT)}}/VirtualServices/V6Scenarios/kioskV5.urs

# Create Virtual Services from WSDL in the Portal

- Enables customers to create virtual web services when recording is not an option or not preferred.
- Exposing the functionality through portal makes it easier to onboard additional users and virtual services without needing a workstation environment

# Service Configuration

- Eliminates the need to re-record transactions to change virtual service behavior
- Enables reconfiguration of HTTP Transport Protocol settings in the portal
- Editing and enhanced visibility into Data Protocol Handlers makes creating and maintaining virtual services easier than ever





# Improved Inspection View

- Simplifies understanding “what” happened for requests and responses in the VSE
- Puts the most relevant information front and center in inspection view

The screenshot displays the 'cars-rest Inspector' interface in the DevTest Portal. The main content area shows a table of 'Recent Requests' with the following data:

Operation	Match Type	Match Toleran...	Transaction ID	Timestamp	Arguments
GET /navicon.ico	No Match	⊗	⊗	10/25/2016 10:35:58 AM	
GET /ghdr	No Match	⊗	⊗	10/25/2016 10:35:58 AM	
GET /loan/isa/simpson/	Stateless	Specific	272	10/25/2016 10:33:55 AM	
POST /loan/	Stateless	Specific	267	10/25/2016 10:33:54 AM	

Below the table, the 'What Happened' section displays a yellow warning message: 'NO MATCH FOUND'. The 'Events' section at the bottom shows a log message: 'WARN: No Match Req... <?xml version="1.0"?> <request operation="GET /fa...'.

# Create Virtual Services and Tests from Swagger 2.0

- Create REST based virtual services and test cases using SWAGGER 2.0 specifications
- Supports parallel development enabling clients to test before the actual service is implemented

# Mainframe Enhancements

# Mainframe – CICS Program Visibility

Single User  
Interface for  
Mainframe CICS  
Recording and  
Playback

DEM3-CICSTS1 -Root-DEMOAPP3

Start Time: 07/27/2016 9:43:27 AM 386  
Transaction ID: 7a8c37a2-5408-11e6-adec-025041000101  
Wall Time: 1611261ms  
Usage Count:  Enable

Go to shelf

SOW1-CICSTS2 (CICS2)  
SOW1-C (CICS3)

Frame Request Response Log Messages XML Exception

Raw Values Encoding: IBM037

```
00010203 04050607 0809A0B 0C0D0E0F
0000 01000000 00C9D5D8 E4C9D9C5 60C3C8C1 . . . . I N Q U I R E - C H A
0010 D5D5C5D3 4000C9D5 D8E4C9D9 C560C2C1 N N E L . I N Q U I R E - B A
0020 D3C1D5C3 C5400000 000026F0 F0F0F0F0 L A N C E . . . . 0 0 0 0 0
0030 F0F0F140 5BF16BF0 F0F04BF0 F0404040 0 0 1 $ 1 , 0 0 0 . 0 0
0040 4040405B F9F6F24B F1F64040 40404040 $ 9 6 2 . 1 6
0050 40C9D5D8 E4C9D9C5 60D7C8D6 D5C54040 I N Q U I R E - P H O N E
0060 40000000 0015F0F0 F0F0F0F0 F0F140F9 . . . . 0 0 0 0 0 0 0 1 9
0070 F7F24BF5 F5F54BF0 F0F0F1C9 D5D8E4C9 7 2 . 5 5 5 . 0 0 0 1 I N Q U I
0080 D9C560D5 C1D4C560 C1C4D900 00000076 R E - N A M E - A D R . . . . Ì
0090 F0F0F0F0 F0F0F0F1 40C34040 40404040 0 0 0 0 0 0 0 1 C
00A0 40404040 40404040 4040C299 96A69540 B r o w n
00B0 40404040 40404040 404040F1 F6F0F440 1 6 0 4
00C0 C39996A2 A240C285 958440D9 84404040 C r o s s B e n d R d
00D0 40404040 40404040 40404040 40404040
00E0 40404040 40404040 40404040 40D79381 P l a
00F0 95964040 40404040 4040E3E7 40F7F5F0 n o T X 7 5 0
0100 F2F34040 4040C9D5 D8E4C9D9 C560E4E2 2 3 I N Q U I R E - U S
0110 C5D94040 40400000 00003DE2 E8E2C9C4 E R . . . . S Y S I D
0120 7A40E2F6 F7F040E4 E2C5D940 C9C47A40 : S 6 7 0 U S E R I D :
0130 C3C9C3E2 E4E2C5D9 40E4E2C5 D940D5C1 C I C S U S E R U S E R N A
0140 D4C57A40 40404040 40404040 40404040 M E :
0150 40404040 40404040
```

Shelf - Create Virtual Service

Virtual Services: 1

1469630595623\_DEM3-CICSTS1-Link-DE... Shelve: **Enable**

Report "No Match"  Bypass Virtual Service

\* Use VRS file:

\* Use Copybook Bundle: CICS  IBM037

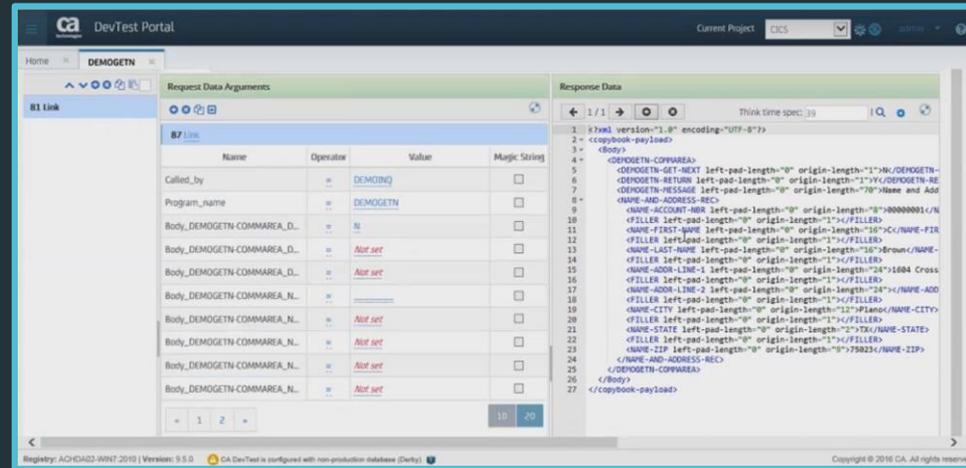
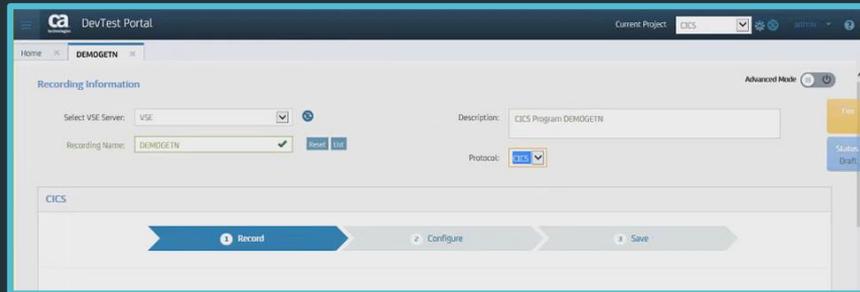
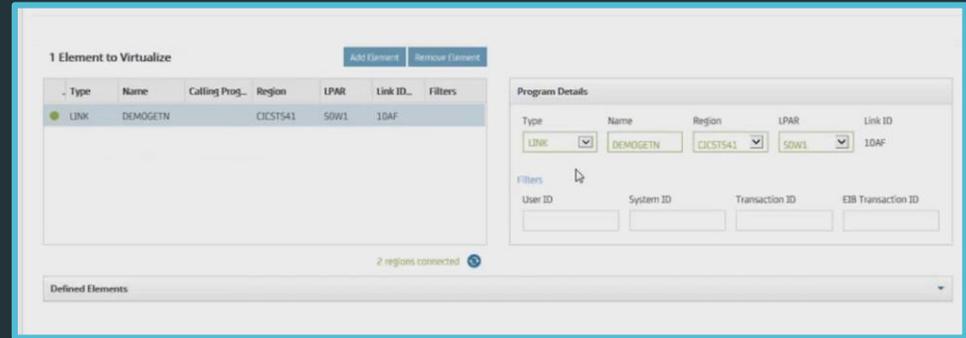
Back to shelf Next

Show All Agents

SOW1-CICSTS1

# Create Virtual Services and Tests CICS Programs in the DevTest Portal

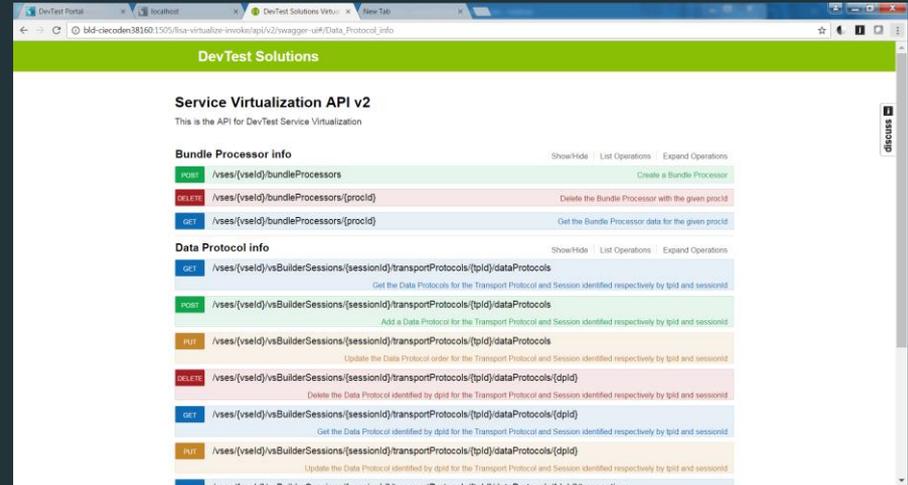
- Record CICS Programs via familiar screens in the DevTest Portal
- Validate and select your CICS Agent and CICS Copybook all one UI



Automation

# Integration API - Create/Edit Virtual Services

- Enables developers/QA/QE engineers to automate the creation and editing of virtual services using a REST based API
- Easy integration from any CI tool
- Uses SWAGGER 2.0 to define the API to support rapid prototyping and stubbing



# The Near Future



# DevTest 10.1 Major Features/Enhancements

GA: April 10, 2017

Definition and MVP for SV Express – Foundational framework and UX/UI

ARD/AppTest Integration

Initial Performance Benchmarking – MQ and HTTP

Engineering Excellence

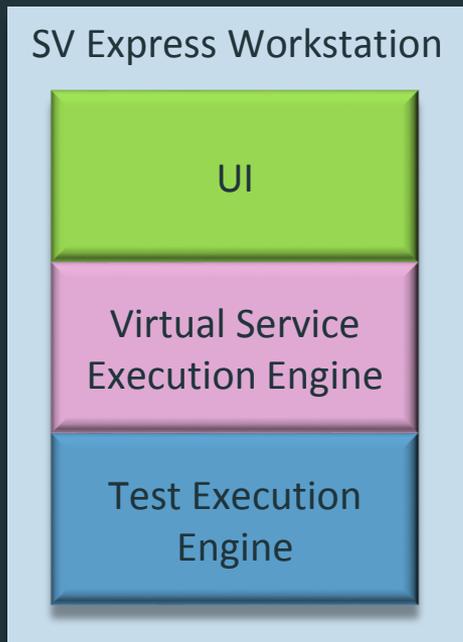
Various Research Activities (SPIKES) – Licensing, SAP, Developer Tools

Laying the foundation for the Road Ahead

# The Road Ahead

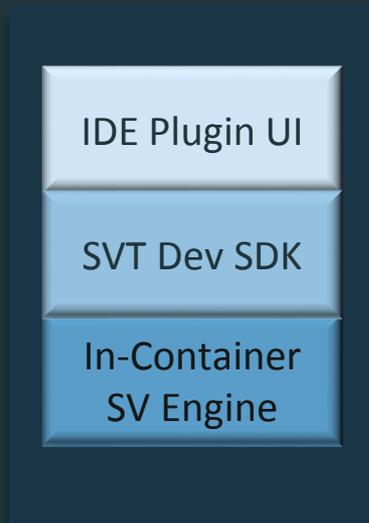


# SV Express Capabilities



- **Standalone Server** (Self-contained architecture, no configuration required)
- **Individual User Model**
- **Simplified User Experience** (at least as good as SOAP UI)
- **Thick Client UI** (Java Swing based)
- **Minimal Footprint:** < 300 MB package size; 2 CPU cores, 1 GB RAM, 5 GB disk.
- **Transport Protocols:** HTTP, HTTPS
- **Data Protocols:** JSON, REST, SOAP, SOAP w/Headers, XML, Request Data Manager, Generic XML Parser
- **Create From:** Recording, RR Pairs, Design Spec (WSDL, Swagger, RAML), Chrome Extension like functionality
- **Test Capabilities:** Web Services, Local Execution
- **Monitoring:** Current test results, virtual service inspection
- **Debugging:** Multiple ITRs
- **Filters, Assertions and Datasets:** Basic ones related to REST/SOAP/JSON/XML
- **Shareable Assets:** Test cases, virtual services can be used by DevTest Enterprise

# SV For Dev (SV4Dev)



- **In-Container Architecture**
- **Free** (Possibly Open Source)
- **Individual User**
- **Build mindshare across Developer community**
- **Transport Protocols:** HTTP, HTTPS, Java, JDBC
- **Data Protocols:** JSON, REST, SOAP, SOAP w/Headers, XML
- **Create From:** Recording, RR Pairs, Design Spec (WSDL, Swagger, RAML), SV-Dev API
- **“As Code” virtual services and tests**
- **Assets will easily migrate to other SV&T offering**
- **Test Capabilities:** Exploratory

# Portal Enhancements

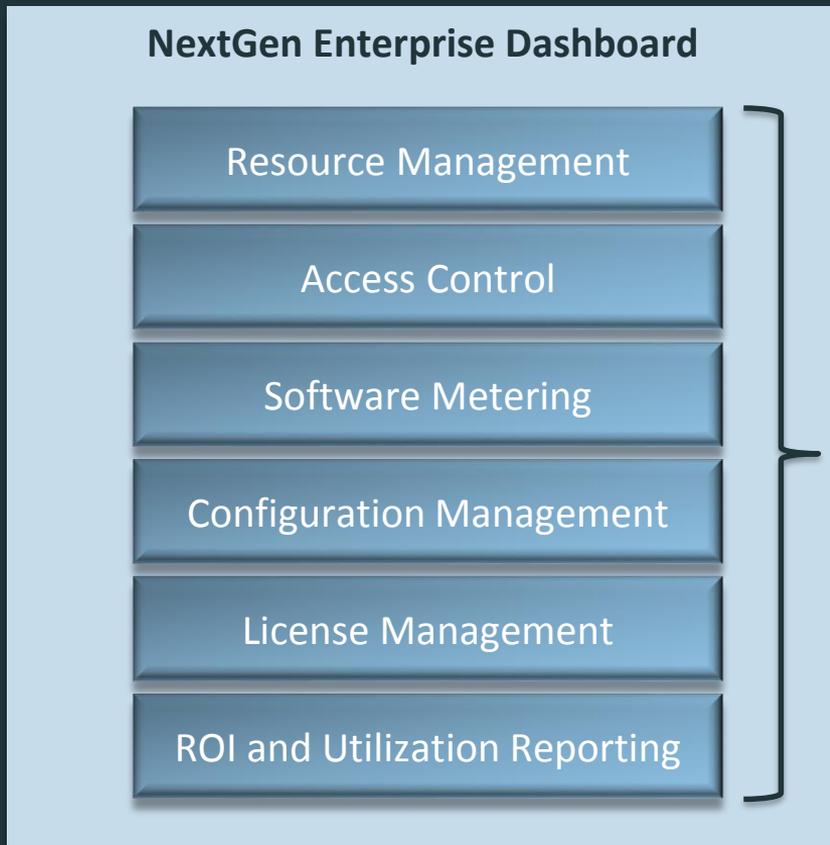
Exploratory Testing for Web Services - HTTP/S, JSON, REST, XML, SOAP

UI Simplification

Support for Additional Data Protocol Handlers – GXPP, RDM, Scriptable

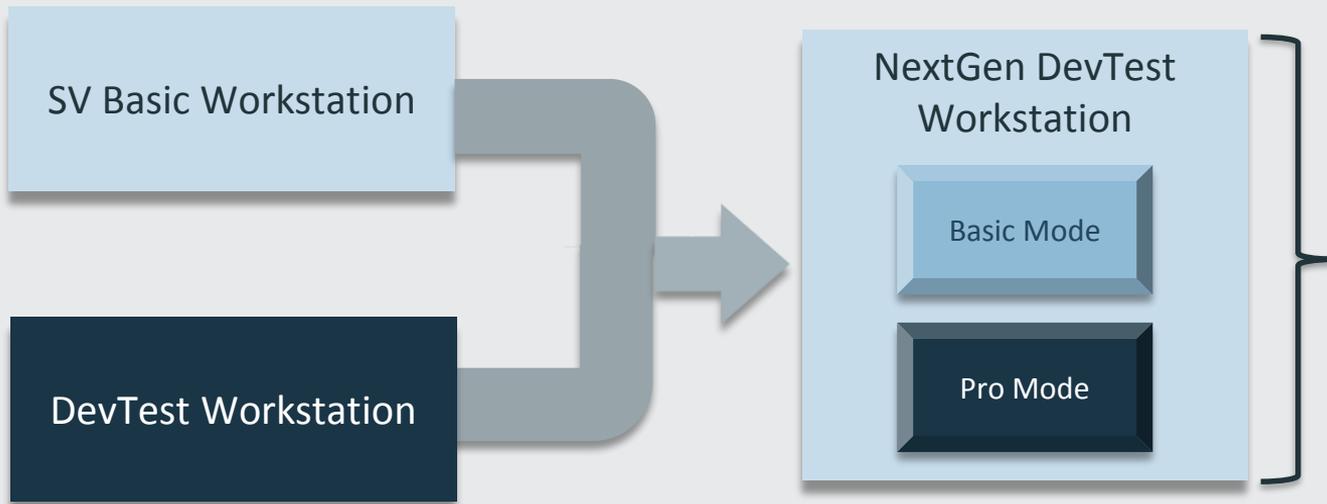
Improved UX – Incorporation of relevant UX work done for SV Express

# NextGen Enterprise Dashboard



- Web based UI with improved UX and reimagined UI
- Centralized Command and Control
- Centralized Access Management
  - Capabilities Based Access
  - Resource Based Access
- Centralized Metric Collection and Reporting
- Centralized License Management

# NextGen DevTest Workstation



- **Reimagined and Rearchitected UX/UI**
- **Standalone or Connected Execution Models:** Can execute as a standalone component or as a connected component to the Registry
- **Thick Client UI** (Built on SV Basic Workstation)
- **Multi Operational Modes:**
  - Basic Mode - SV Basic functionality
  - Pro Mode – Full DevTest functionality

# DevTest Product Roadmap

	FY18Q1	FY18Q2	FY18Q3	FY18Q4	FY19Q1	FY19Q2
Enterprise Adoption	SV Express	Next Gen Workstation				
	Licensing & Metering Consumption based licensing	Usage telemetry & ROI				
	Packaged Apps Support SAP, Oracle					
	Portal Enhancements API (REST/SOAP) Test	Enhanced Enterprise Experience Manageability	Seamless upgrades	Fine grain RBAC		
	SV Test Drive For sales lead gen			SV Asset Sharing Test and virtualization asset sharing across customer teams		
SV for Developer	SV for Developers SV for Developers Prototype, IDE plug-in	SV for Developers MVP		SV for Developers 2 WireMock library abstraction, additional IDE plug-in		
SV & the Cloud	SV BYOL in AWS, Azure Initial AMI Deployment	Architectural enhancements				
		SV-as-Service Research Spike	Prototype	MVP		
AppTest		Integration APIs Update AppTest APIs		CICD Plugins Jenkins, Team City, Gradle		



Q & A