

# TechComplete™

## Workflow automation for the JDSU HST-3000 Handheld Services Tester



### Benefits

- Lowers OpEx — reduces repeat-failure rates and truck rolls, decreases mean-time-to-repair (MTTR), and minimizes the need for technician training
- Increases revenue — reduces SLA credits, speeds turn-ups to bring more customers online faster, and minimizes customer churn
- Expands services — with fewer repeats, customer satisfaction improves and customers are more likely to add services
- Decreases complexity — automation provides one-button testing and centralizes test-set management; quickly deploys new methods and procedures despite a fast-changing environment

### Features

- Manages assets with a single, intuitive interface for monitoring and upgrading equipment
- Quickly uploads results to a centralized storage warehouse for analysis to benchmark service and provide certification
- Integrates with back-office systems to let dispatch and work-order information populate test flows, reducing errors and times for technicians on the job
- Includes automated copper-physical-layer, xDSL, and IP-service-layer checks for clearly distinguishing core- and access-network problems with the HST-3000
- Integrates with web-based tools to coordinate field and central-office tasks, dramatically improving operational efficiency

TechComplete is a sophisticated software application that adds workflow automation and asset management to the JDSU HST-3000: the modular, access network tester for VoIP, IPTV, and installing and maintaining next-generation FTTx- and PON-based triple-play services.

### Why Workflow Automation?

Workflow automation is the cost-effective, efficient way to manage repetitive, mission-critical tasks such as circuit, service-acceptance, and close-out tests. These tests are usually based on an operator's specific methods and procedures (M&Ps), and these protocols need to be distributed to technicians in a consistent and repeatable manner. Technicians need to run the tests with equal consistency and then upload results for standardized analysis, integrating with a variety of back-office systems and web-based tools.

### The TechComplete Solution

TechComplete lets you easily distribute work-order flows to test sets, enable best-practice tests with script automation, and store and upload results. Analytics and advanced reporting capabilities transform test results into actionable information such as adjustments to M&Ps, areas for preventative maintenance, or non-compliance of test procedures and testing. Additional capabilities let you manage thresholds, perform software updates, and manage your test-set inventory.

TechComplete provides custom, optimal thresholds that measurably reduce repeats—without over-engineering the network. No false negatives and no gold-plated networks! And, integrating workflows solidly links work orders with test results that are captured by the automated closeout process against thresholds addressing service compliance. TechComplete securely uploads these results to a centralized database and provides traceable evidence of compliance at closeout.

# TechComplete — WorkFlow automation for the JDSU HST-3000 Handheld Services Tester

**DSLAM** FHSPPEs  
PPPoE  
FHSA-512

**Show Time UP DOWN**

Actual Rate 160.0K 576.0K  
Max Rate 896K 8128K  
Capacity 18% 7%  
Noise Margin 31dB 46.5dB  
Attenuation 0.5dB 2dB

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**IP Ping In Process** FHSPPEs  
PPPoE  
FHSA-512

**IP Ping Passed**

Number of IP Pings 4  
Ping from location 172.16.16.12  
IP Ping MAX 30  
IP Ping AVG 26  
IP Ping Return % 100%

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**PPP Negotiation** FHSPPEs  
PPPoE  
FHSA-512

**PPP Successful**

User Name pppuser  
Password ppppassword  
IP Leased 172.16.16.15  
PPP login PASS

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**FTP Speed In Process** FHSPPEs  
PPPoE  
FHSA-512

**FTP Speed Passed**

FTP server dest ftp://192.168.  
FTP throughput Up 174 Kbps  
FTP throughput Down 492 Kbps

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**Summary** FHSPPEs  
PPPoE  
FHSA-512

**All Jobs Passed**

ADSL Sync  
Data Sync  
Ping  
Throughput

HST-3000 automation features and test scripts display simple pass/fail results that increase technician efficiency and accuracy.

Actual practice shows how dramatically TechComplete can increase efficiency and reduce costs:

- repeat rates drop from 24 to 5 percent
- incident reports drop 30 percent during the first month of deployment
- DSL repair dispatches decrease 25 percent
- technician time spent per installation dispatch decreases 12 percent
- technician time spent per repair dispatch decreases 15 percent.



The architecture of the HST-3000 enables fast, easy field-swapping of a wide variety of test modules.

## Asset Management

The TechComplete Asset Management graphical user interface (GUI) provides a single, intuitive way to monitor and upgrade assets in the field. The administrator can quickly identify out-of-date and under-utilized test sets and target updates and the reallocation of assets. With TechComplete, registration identifies which HSTs are assigned to each technician. TechComplete tracks each test-set sync with the server, making utilization and test practices visible. Post-analysis of circuit compliance and engineer activity provides near-real-time coaching opportunities.

Manufacturer	DeviceType	Serial Number	Assigned Firm	Assigned Script	Calibration Date	Calibration Exp.	Firmware Version	HST ID
JDSU	HST-3000	ARL0014570302	7.20.23	4.2	2008-06-18	2011-06-18	7.02.10	3FE8800000000000
JDSU	HST-3000	ARL0014570308	7.20.23	4.2	2008-06-18	2011-06-18	7.20.23	35D4800000000000
JDSU	HST-3000	N/A	7.4	4.2				80E4800000000000
JDSU	HST-3000	ARL0014270385	7.20.24		2010-03-17	2013-03-17		A858800000000000
JDSU	HST-3000	ARL0014570289	7.20.23	4.2	2008-06-18	2011-06-18	7.20.23	84E3800000000000
JDSU	HST-3000	ARL0010281918	7.20.23	4.2	2008-06-18	2011-06-18	7.20.23	7838800000000000
JDSU	HST-3000	ARL00000282100	7.20.23	4.2	2007-01-11	2010-01-11	7.20.23	953C000000000000
JDSU	HST-3000	ARL0014110987			2010-01-08	2013-01-08		0722800000000000
JDSU	HST-3000	ARL0014110303			2010-01-08	2013-01-08		240E800000000000
JDSU	HST-3000	ANPAP4152187	7.20.23	4.2			7.20.23	2584800000000000
JDSU	HST-3000	ARL0000421546	7.02.10	4.2	2008-06-18	2011-06-18	7.02.10	8E39400000000000
JDSU	HST-3000	ARL0010281989	8.11.00	4.2	2008-11-28	2012-11-28	8.11.00	8072800000000000

TechComplete Asset Manager

Upgrades can be applied automatically during the normal work-order process, as engineers use their test sets in the field. This dramatically reduces the amount of time spent in the work center determining the fit-for-purpose status of the test set, identifying upgrade requirements, and then manually upgrading the test set. Additionally, since the test set is upgraded directly, the associated PC is not impacted. This removes the requirement for a gated IT process for applying upgrade packages to the PC, avoiding extra costs and cycle time.



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