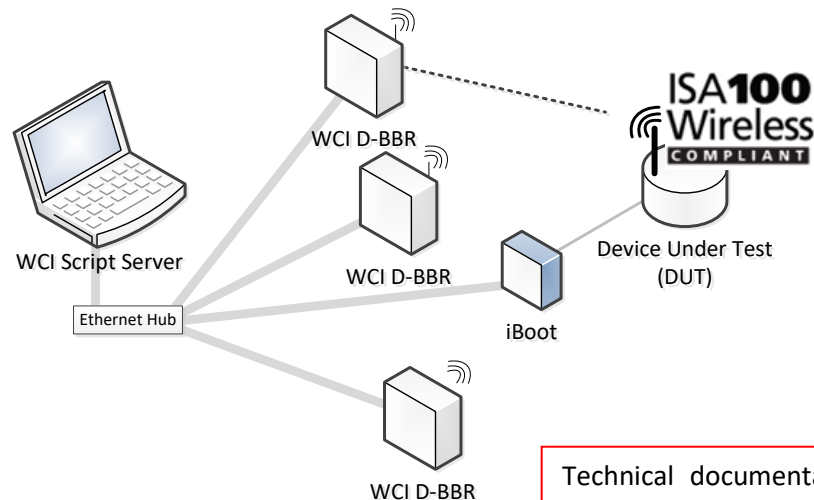


ISA100.11a Stack Interoperability Test Kit (STK) Generation 2

Description

The ISA100 Wireless Stack Interoperability Test Kit (STK) Generation 2 is a complete package that allows the user to ensure a manufacturer's stack conforms to WCI's official ISA100 Wireless registration testing. This product defines test requirements and verifies correct communication behavior of a wireless device as defined in the implementation specification version W2-01. It is an excellent tool for troubleshooting, debugging, and regression testing of ISA100 Wireless stacks and products.

The STK allows certifying device conformance to the ISA100.11a standard, providing the basis for use of the ISA100 Wireless Compliant logo and registration on this website.



Components

- Script Server (Linux machine)
- Test Scripts
- Three (3) Diagnostic Backbone router (D-BBR)
- Reference Device Under Test (DUT)
- iBoot
- Ethernet Hub
- Documentation
- Technical Support for STK setup and usage
- Part Warranty - one (1) year

Technical documentation is preloaded on the WCI Script Server, also available as a download on WCI' GitHub portal, as well as via Centero website.

For technical support please contact us at:

support@centerotech.com



About the ISA100 Wireless Compliance Institute

Comprised of industry leaders from major manufacturing and automation control system users and suppliers, the ISA100 Wireless Compliance Institute (WCI) was formed to decrease the time, costs, and risks of developing and deploying standards-based, industrial wireless devices and systems. WCI has established a collaborative industry-based program among users, suppliers, and other stakeholders that conducts independent testing and certification of wireless devices and systems; provides education, tools, and technical support to users and suppliers; accelerates adoption of the ISA100 standards; and assures interoperability. For more information about the ISA100 Wireless Compliance Institute, visit <http://www.isa100wci.org>.

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STK – Getting Started

In order to verify the ISA100 STK setup works fine and is ready for usage, please perform the following steps:

1. Connect the Script Server, iBoot and the D-BBR devices via Ethernet cables to the provided network hub.
2. Power ON the Script Server, iBoot and the D-BBRs.
3. Log in, into the Script Server (user: isa100 / password: isa100) and navigate to the folder that contains the WCI STK applications. Read the included documentation, especially the STK User Manual document).

```
\home\wci\WTK_Downloads\STK\STK_n.nn\Documents\
```

4. Power ON the Reference Device (Power supply connected to iBoot).
5. Reset the Reference Device to Factory Default (according to the instructions provided by the vendor).
6. On the Script Server, open a Terminal window and try to ping the D-BBR devices to ensure that D-BBR, iBoot and Script Server can communicate via Ethernet

```
D-BBR 1:      ping 192.168.254.8
D-BBR 2:      ping 192.168.254.9
D-BBR 3:      ping 192.168.254.10
iBoot:        ping 192.168.254.253
```

7. Open the configuration file named “ss.ini” and ensure that the Reference Device’s EUI-64 and IPv6 are correctly configured in the section “DUT1_*”:

```
gedit \home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\Config\ss.ini
```

Example:

```
DUT1_EUI64Add = 0022FF00000235CC
DUT1_IPV6Add = FE80000000000000000022FF00000235CC
DUT1_16BITAdd = 0B01
DUT1_16BITAdd_ExtDL = 0316
```

Save and close the ss.ini file.

8. Navigate to \home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\BLC\BLC\ and execute BLC test(s):
./Execute_TP_Device.sh

Note: In preparation for the actual stack testing, (C) and (D) below, the ss.ini file (see step 7 above) must be configured for the DUT, and the DUT shall pass BLC test (see step 8 above).

A. BLC test (takes the device through DUT Basic Life Cycle: Factory Default->Provisioned->Joined->Read Attributes->Provisioned->Factory Default)

```
\home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\BLC\BLC\
```

B. JoiningScript test (re-provision DUT):

```
\home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\BLC\JoiningScript\
```

C. All stack tests (device must be in Factory Default):

```
\home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\Execute_Stack.sh
```

D. UDO DMAP test (device must be provisioned at start of this test):

```
\home\wci\WTK_Downloads\STK\STK_n.nn\Stack_testKit\UDO_DMAP\UDOTP1_Load \Execute_TP_UDO.sh
```