

Jenkins CI Server for 1xPlus Test Rig

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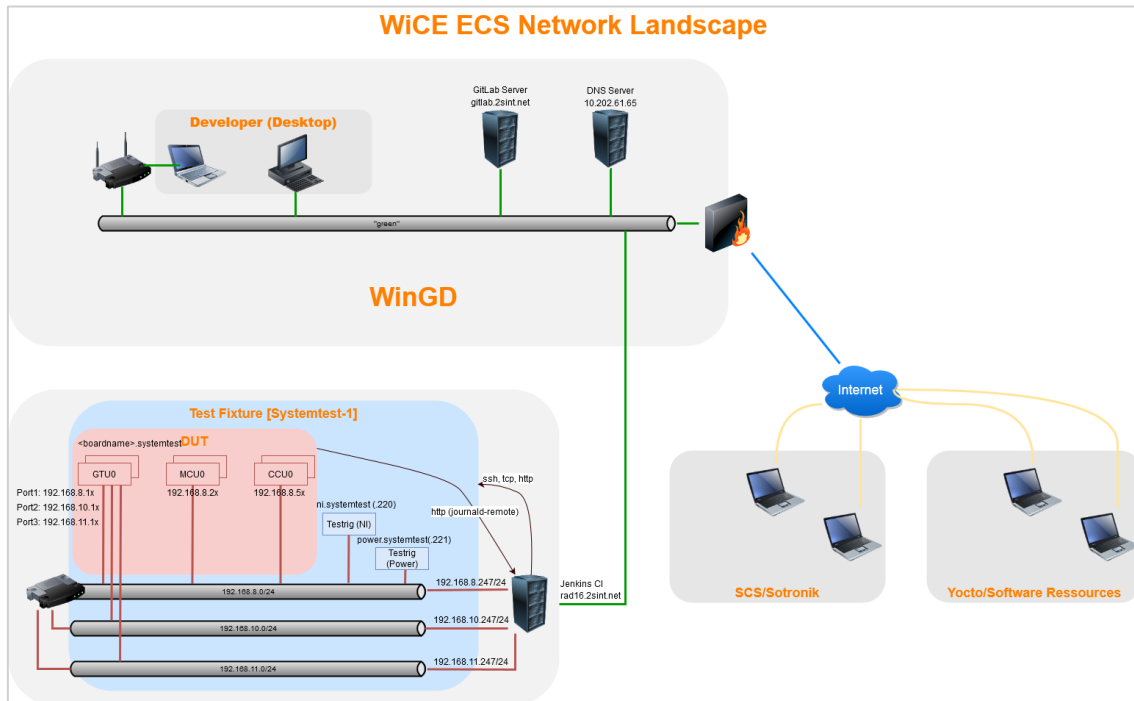
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1 Network Environment



1.1 Deviation from SCS network

- DNS Server: 10.202.61.65
- GitLab server gitlab.2sint.net, IP address: 10.202.65.19
- rad16 (Ubuntu 16.04, Jenkins) is used for building yocto and for automated system tests
- rad16 has 2 network interfaces:
 1. connected to WinGD LAN, accessible via rad16.2sint.net, IP address: DHCP, 10.202.73.0 (it could change in the future)
 2. connected to Test Fixture [Systemtest-1] with several fix IP addresses: 192.168.8.247/24, 192.168.10.247/24, 192.168.11.247/24 (the latter two are used in some tests to access Ethernet ports 2 & 3 of GTUs)

2 Yocto Build Process

Build & test server machine (Jenkins CI): <http://rad16.2sint.net/>

Git server: <http://gitlab.2sint.net/AutomationAndControl/SCS-Repos>

2.1 Git Repositories

- yocto-ecs.git – mirror of CSC repository “[yocto-ecs.git](#)” on GitLab

Jenkins jobs defined on this repository:

- Jenkinsfile-build: build yocto-ecs project on wingd-master branch
- Jenkinsfile-build-fnd-next: build yocto-ecs project on wingd-master-next branch
- Jenkinsfile-build-fnd-development: build yocto-ecs project on wingd-development branch
- Jenkinsfile-all: run Jenkinsfile-build job, on success run system test job on wingd-master branch; start on timer (currently Mon-Fri 20:00)
- Jenkinsfile-all-fnd-next: run Jenkinsfile-build-fnd-next job, on success run system test job on wingd-master-next branch; start on timer (currently Sat-Sun 14:00)
- Jenkinsfile-all-fnd-development: run Jenkinsfile-build-fnd-development job, on success run system test job on wingd-development branch; start on timer (currently Sat-Sun at 20:00)

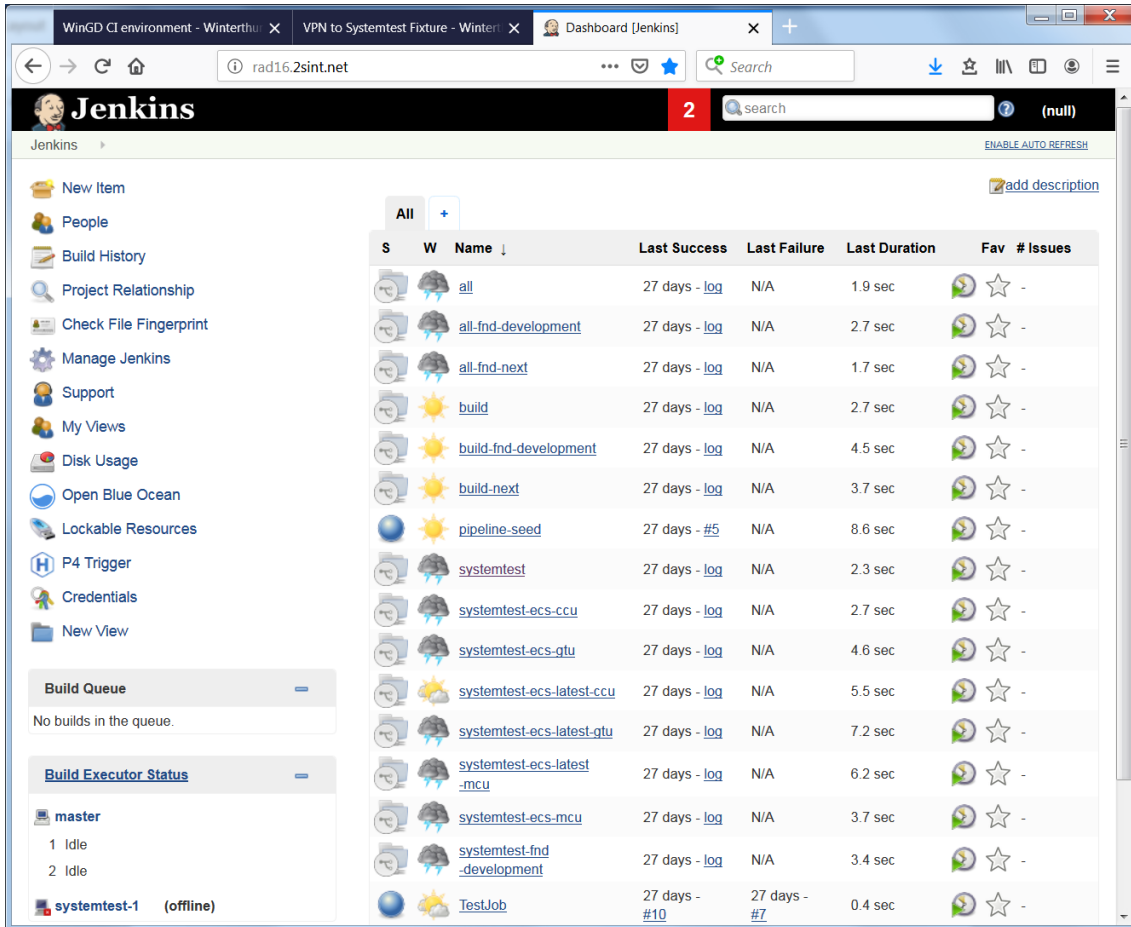
- mazu-ecs-systemtest-infra.git – mirror of CSC repository “[mazu-ecs-systemtest-infra.git](#)” on GitLab

Jenkins jobs defined on this repository:

- Jenkinsfile: run system test job on the specified branch (wingd-master, wingd-master-next or development)
- Jenkinsfile-ccu: same as Jenkinsfile, but only for CCU-1 (python script argument "--dut=CCU-1"); only manual start trigger
- Jenkinsfile-gtu: same as Jenkinsfile, but only for GTU-1 (python script argument "--dut=GTU-1"); only manual start trigger
- Jenkinsfile-mcu: same as Jenkinsfile, but only for MCU-1 (python script argument "--dut=MCU-1"); only manual start trigger

3 Jenkins GUI

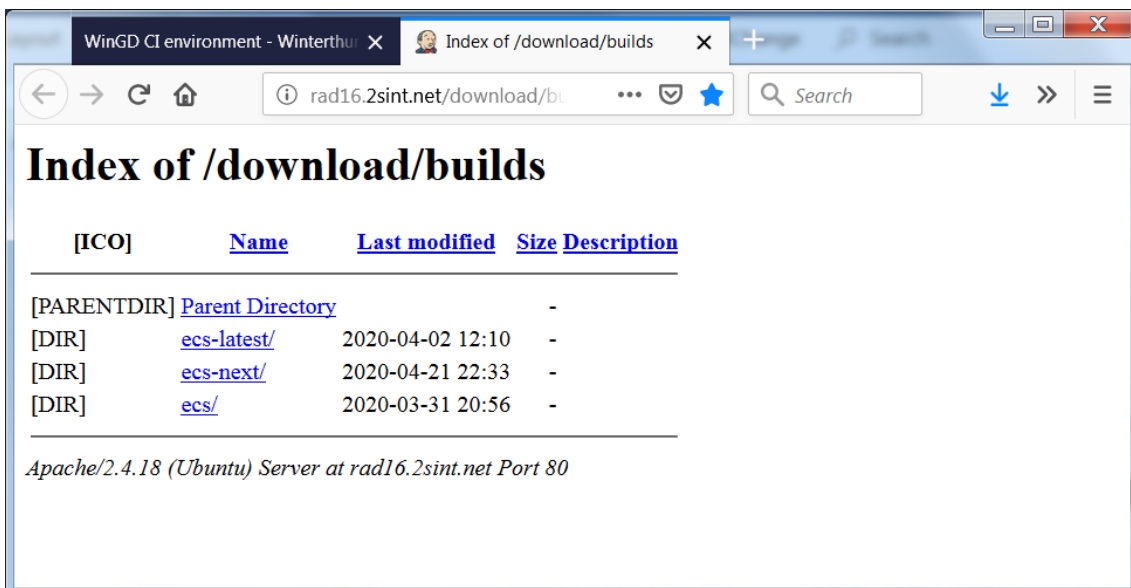
Jenkins GUI is accessible form the WinGD LAN (or via VPN) at this URL: rad16.2sint.net



The screenshot shows the Jenkins web interface. The top navigation bar includes links for 'New Item', 'People', 'Build History', 'Project Relationship', 'Check File Fingerprint', 'Manage Jenkins', 'Support', 'My Views', 'Disk Usage', 'Open Blue Ocean', 'Lockable Resources', 'P4 Trigger', 'Credentials', and 'New View'. The main content area displays a table of builds with columns for 'S' (Success), 'W' (Warning), 'Name', 'Last Success', 'Last Failure', 'Last Duration', 'Fav', and '# Issues'. The table lists various build jobs such as 'all', 'all-fnd-development', 'all-fnd-next', 'build', 'build-fnd-development', 'build-next', 'pipeline-seed', 'systemtest', 'systemtest-ecs-ccu', 'systemtest-ecs-gtu', 'systemtest-ecs-latest-ccu', 'systemtest-ecs-latest-gtu', 'systemtest-ecs-latest-mcu', 'systemtest-ecs-mcu', 'systemtest-fnd-development', and 'TestJob'. The 'systemtest-1' node is shown as 'offline' in the 'Build Queue' section.

S	W	Name	Last Success	Last Failure	Last Duration	Fav	# Issues
		all	27 days - log	N/A	1.9 sec		-
		all-fnd-development	27 days - log	N/A	2.7 sec		-
		all-fnd-next	27 days - log	N/A	1.7 sec		-
		build	27 days - log	N/A	2.7 sec		-
		build-fnd-development	27 days - log	N/A	4.5 sec		-
		build-next	27 days - log	N/A	3.7 sec		-
		pipeline-seed	27 days - #5	N/A	8.6 sec		-
		systemtest	27 days - log	N/A	2.3 sec		-
		systemtest-ecs-ccu	27 days - log	N/A	2.7 sec		-
		systemtest-ecs-gtu	27 days - log	N/A	4.6 sec		-
		systemtest-ecs-latest-ccu	27 days - log	N/A	5.5 sec		-
		systemtest-ecs-latest-gtu	27 days - log	N/A	7.2 sec		-
		systemtest-ecs-latest-mcu	27 days - log	N/A	6.2 sec		-
		systemtest-ecs-mcu	27 days - log	N/A	3.7 sec		-
		systemtest-fnd-development	27 days - log	N/A	3.4 sec		-
		TestJob	27 days - #10	27 days - #7	0.4 sec		-

The built artifacts (i.e. WiCE SW images) for all three branches (“ecs” for wingd-master, “ecs-next” for wingd-master-next and “ecs-latest” for wingd-development) are accessible at this link: rad16.2sint.net/download/builds



The screenshot shows a directory listing for 'Index of /download/builds'. The table lists the following items:

[ICO]	Name	Last modified	Size	Description
[PARENTDIR]	Parent Directory		-	
[DIR]	ecs-latest/	2020-04-02 12:10	-	
[DIR]	ecs-next/	2020-04-21 22:33	-	
[DIR]	ecs/	2020-03-31 20:56	-	

Apache/2.4.18 (Ubuntu) Server at rad16.2sint.net Port 80