



ETICS

ETICS Pool for IPv6 tests

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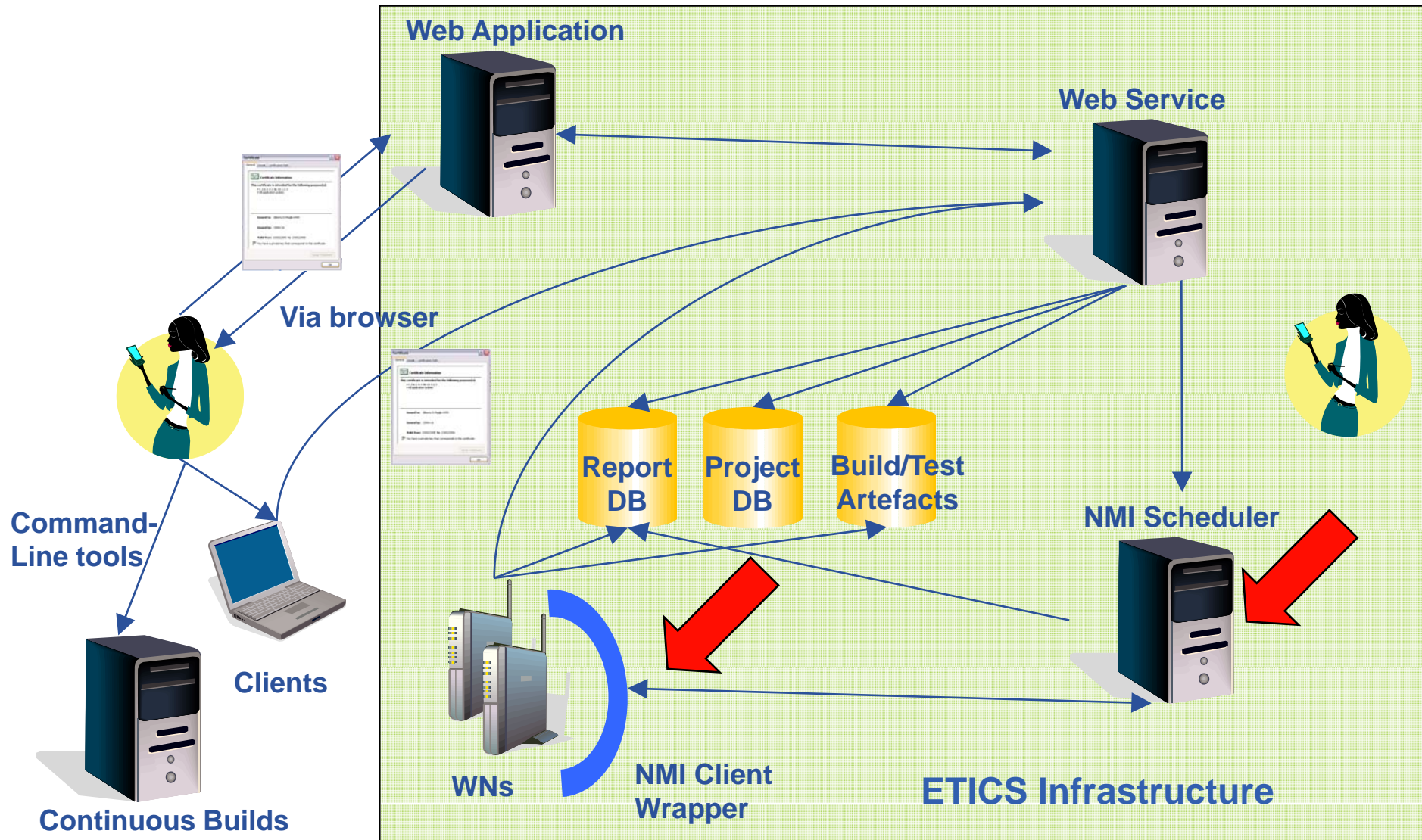
www.eu-etics.org

Geneva-CERN, 25th of July 2007



- **Motivation**
- **Practical work**
- **Lesson learned**
- **What's missing**
- **Q & A**

- **ETICS in collaboration with GARR and UREC wants to enable the community to test their software on the IPv6 network stack**



- **Dedicated nodes has been setup to build the ETICS-IPv6 pool including the nodes from GARR(2), UREC(1), and CERN(1)**
- **The GARR and UREC nodes are running the double stack: IPv6 and IPv4**
- **Despite the numerous requests CERN was not able to support the IPv6 networking**

- The special Condor configuration has been adopted to assure the proper match making for IPv6 jobs

- on the WN (not visible to the user)

```
host_network_stack = "IPv6"
STARTD_EXPRS = $(CONDOR_CONFIG)
START = /bin/true
```

- in the job file (not visible to the user)

```
client_req 'append_requirements=( host_network_stack =?= "IPv6" )',
client_req '++job_network_stack = "IPv6" <your_project_name_here>'
```

- from the etics-test command (extra options)

```
etics-test ... --remote-platforms slc4_ia32_gcc346 --remote-requirements
client_req 'append_requirements=( host_network_stack =?= "IPv6" )',
client_req '++job_network_stack = "IPv6" <your_project_name_here>'
```

These are the temporary solutions and will be replaced with more elegant ones: --ipv6 option for the etics-client and a flag for the WA

- After the initial tests the GARR and UREC nodes has been attached to the ETICS production pool:
<http://etics.cern.ch/nmi/index.php?page=pool/index>
- Test pool visible at:
<http://etics-preprod.cern.ch/nmi/index.php?page=pool/index>
- The IPv6 nodes should be present either in the production or pre-production pool



Title: National Science Foundation
Address: <http://www.nsf.org/>

NMI Build & Test System

[Run Results](#) | [Pool Status](#)

Pool Statistics		
Hosts:	48	
Unique Hosts:	25	
Unclaimed Hosts:	39	81.25%
Hosts:	1	2.08%
Claimed Hosts:	8	16.67%
Idle Hosts:	39	81.25%
Busy Hosts:	8	16.67%

• [Home](#) > Pool Overview

Vendor Pool Status						
Host	Platform	State	Activity	Activity Time	User	Run ID
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
grandcentral.cs.wisc.edu-SITE				329241:31:45	-	-
etics-01.cnaf.infn.it-SITE		Unclaimed	Idle	329241:31:45	-	-
dev2-4.dir.garr.it	x86_slc_4	Unclaimed	Idle	17:32:53	-	-
vm1@xb1053.cern.ch	x86_slc_4	Unclaimed	Idle	02:47:09	-	-
vm2@xb1053.cern.ch	x86_slc_4	Unclaimed	Idle	18:44:42	-	-
vm2@xb1055.cern.ch	x86_slc_4	Unclaimed	Idle	02:07:35	-	-
vm1@xb1055.cern.ch	x86_slc_4	Unclaimed	Idle	02:42:09	-	-
vm2@xb1056.cern.ch	x86_slc_4	Unclaimed	Idle	01:21:40	-	-
vm1@xb1056.cern.ch	x86_slc_4	Unclaimed	Idle	01:22:08	-	-
vm2@xb1057.cern.ch	x86_slc_4	Claimed	Busy	22:43:01	tomcat4@xmrrb3703.cern.ch	-
vm1@xb1057.cern.ch	x86_slc_4	Claimed	Busy	07:26:10	tomcat4@xmrrb3703.cern.ch	-
vm2@xb1060.cern.ch	x86_slc_3	Unclaimed	Idle	02:14:49	-	-
vm1@xb1060.cern.ch	x86_slc_3	Unclaimed	Idle	02:21:07	-	-
vm2@xb1061.cern.ch	x86_slc_3	Claimed	Busy	04:50:27	tomcat4@xmrrb3703.cern.ch	-
vm1@xb1061.cern.ch	x86_slc_3	Claimed	Busy	04:56:53	tomcat4@xmrrb3703.cern.ch	-
vm2@xb1062.cern.ch	x86_slc_3	Unclaimed	Idle	00:19:35	-	-
vm1@xb1062.cern.ch	x86_slc_3	Claimed	Busy	00:08:01	tomcat4@xmrrb3703.cern.ch	-
vm2@xb1103.cern.ch	x86_sl_5	Unclaimed	Idle	00:43:12	-	-
vm1@xb1103.cern.ch	x86_sl_5	Claimed	Busy	26:33:49	tomcat4@xmrrb3703.cern.ch	-
vm2@xb1111.cern.ch	x86_rhes_4	Unclaimed	Idle	02:29:22	-	-
vm1@xb1111.cern.ch	x86_rhes_4	Unclaimed	Idle	94:47:24	-	-
vm2@xb1112.cern.ch	x86_rhes_4	Unclaimed	Idle	02:28:11	-	-
vm1@xb1112.cern.ch	x86_rhes_4	Unclaimed	Idle	194:11:36	-	-
vm2@xb1113.cern.ch	x86_fc_6	Unclaimed	Idle	02:26:28	-	-
vm1@xb1113.cern.ch	x86_fc_6	Unclaimed	Idle	00:39:42	-	-
vm2@xb1114.cern.ch	x86_slc_4	Unclaimed	Idle	00:17:41	-	-
vm1@xb1114.cern.ch	x86_slc_4	Unclaimed	Idle	00:08:37	-	-
vm2@xb1115.cern.ch	x86_fc_5	Unclaimed	Idle	02:20:49	-	-
vm1@xb1115.cern.ch	x86_fc_5	Unclaimed	Idle	00:14:30	-	-
vm2@xb1116.cern.ch	x86_rhes_3	Unclaimed	Idle	02:13:08	-	-



NMI Build & Test System

[Run Results](#) | [Pool Status](#)

Pool Statistics		
Hosts:	5	
Unique Hosts:	4	
Hosts:	2	40.00%
Unclaimed Hosts:	2	40.00%
Owner Hosts:	1	20.00%
Idle Hosts:	3	60.00%

• [Home](#) > Pool Overview

Condor Pool Status							
Host	Platform	State	Activity	Activity Time	User	Run ID	
etics-01.cnaf.infn.it-SITE				329241:22:18	-	-	
grandcentral.cs.wisc.edu-SITE				329241:22:18	-	-	
etics-4.dir.qarr.it	x86_slc_4	Unclaimed	Idle	22:45:56	-	-	
lxb1416.cern.ch	x86_slc_4	Unclaimed	Idle	01:57:46	-	-	
quarks.paris.urec.cnrs.fr	x86_sl_3.0.8	Owner	Idle	119:54:09	-	-	

Version: 2.2.6 Render Time: 0.071 secs



NMI Build & Test System

Run Results | [Pool Status](#)

Tasks Statistics		
Total Tasks:	7	
Completed:	7	100.00%
Running:	0	0.00%
Queued:	0	0.00%
Failed:	0	0.00%

File Information	
Run Directory:	View
Archived:	Yes
Pinned Until:	-

• [Home](#) > [Runs Overview](#) > Run Details

Run Details - a Test project for the ETICS/EGEE/EUChina IPv6 tests			
Run ID:	12410	GID:	tomcat4_lxmrrb3703.cern.ch_1184868848_17071
User:	Mario Reale	Run Type:	TEST
Project:	gLite IPv6 compliance	Project Version:	-
Component:	gLite IPv6 compliance	Component Version:	-
Start:	Jul-19-2007 16:14	Finish:	Jul-19-2007 16:35
Submission Host:	lxmrrb3703.cern.ch	Duration:	00:21:40
Metronome Version:	2.2.7	Metronome Install Path:	/opt/nmi-2.2.7
Result:	Complete		

Task Results							
ID	Result	Output	Platform	Name	Host	Start	Duration
83986	Complete		local	fetch.eticsBuildSystem...	lxmrrb3703.cern.ch	Jul-19-2007 16:14	00:00:07
84006	Complete		local	post_all	lxmrrb3703.cern.ch	Jul-19-2007 16:35	00:00:29
84007	Complete	-	local	common.put	lxmrrb3703.cern.ch	Jul-19-2007 16:35	00:00:08
83987	Complete	-	x86_slc_4	platform_job		Jul-19-2007 16:15	00:19:35
83997	Complete	-	x86_slc_4	remote_declare	dev2-4.dir.garr.it	Jul-19-2007 16:27	00:00:00
83998	Complete		x86_slc_4	remote_task	dev2-4.dir.garr.it	Jul-19-2007 16:27	00:03:11
84002	Complete		x86_slc_4	remote_post	dev2-4.dir.garr.it	Jul-19-2007 16:31	00:00:00

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Version: 2.2.7 Render Time: 0.108 secs

- **Mario, Xavier will tell more about the performed tests.**
- **Marian will tell more about the NMI and Condor at 11:10.**

- **Taking into account the site policies building the Condor pool out of geographically dispersed Worker Nodes isn't a a trivial task as it may appear. Numerous issues found like:**
 - Reverse DNS
 - Solved by hard-coding the IP addresses in the Condor config files
 - Firewall policies
 - Condor: Job Match-making: partial match was causing the ETICS production pool throughput degradation
 - Power-cuts, etc.
- **Mail, IM, SMS, phone were very useful**

- **ETICS in collaboration with GARR and UREC is providing the infrastructure enabling the community to perform the IPv6 tests**
- **The allocation of more resources might be needed in the future**
- **Automated deployment procedures should be established to guarantee the service persistency**
- **We plan to continue the collaboration**

- **New layout of ETICS Web Application featuring the IPv6 check-box is being developed and will be deployed as part of Release v1.2 (to be confirmed)**
- **Etics client with the -ipv6 switch is already available and will be deployed as part of Release v1.2**
- **IPv6 plug-in results will be presented by Alberto**
- **Co-scheduling will be covered by Marc-Elian**
- **Dedicated session during the EGEE'07 conference in Budapest**

Q & A