Etalon environments in testing.
How we use it

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Main challenges

- ❑ Good quality
- ❑ Wide scope
- ❑ Short time

Card Suite system

SWITHCHING AND CLEARING

ISSUING

ACQUIRING

FRAUD AND DISPUTE MANAGEMENT

POINT OF INTERACTION MANAGEMENT

U-COMMERCE

CARDHOLDERS

MERCHANTS, ATM'S
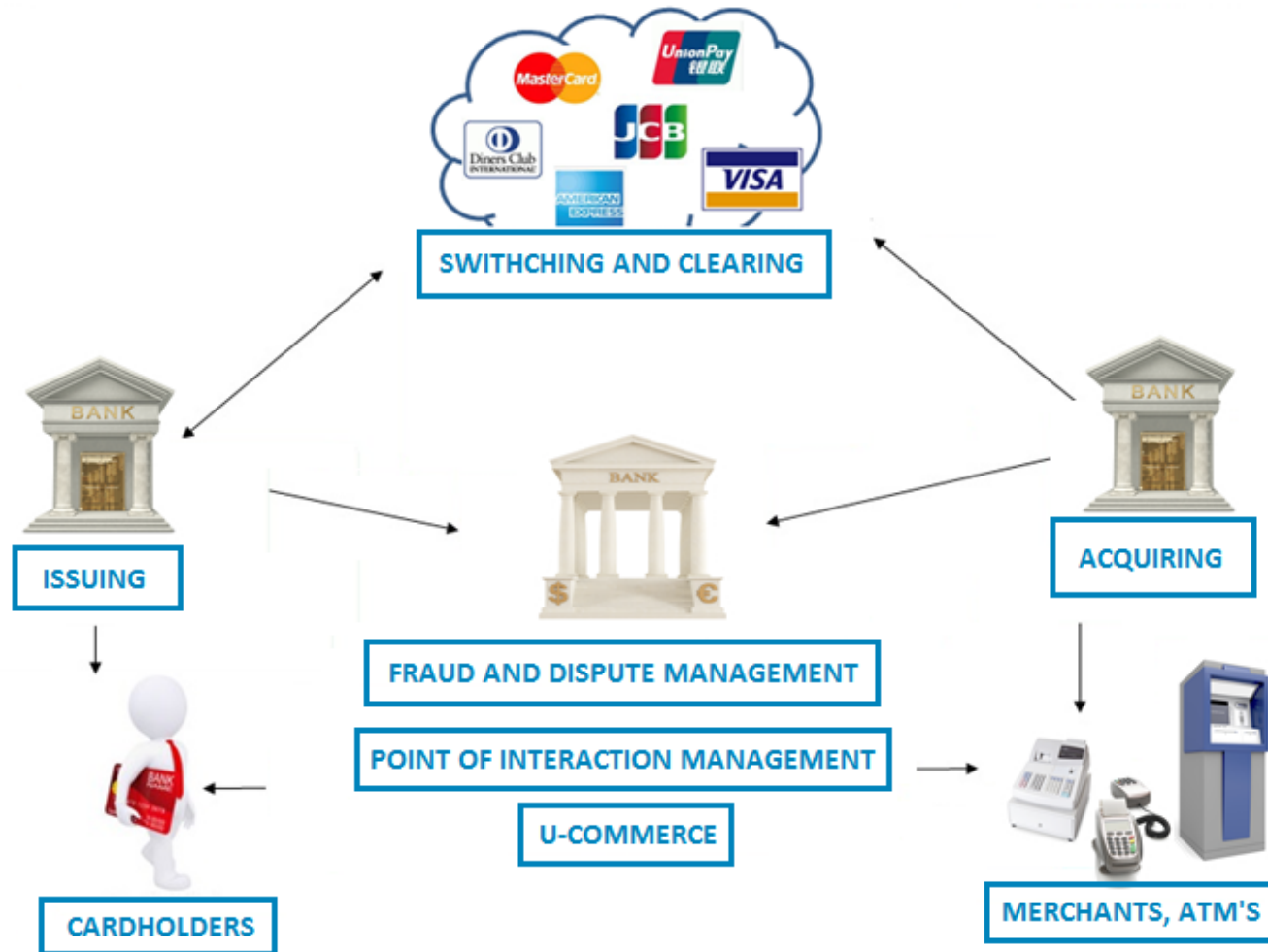
Huge amount of customers

Globally

80+

customers

37 countries

400+ installations

Complicate customer solution
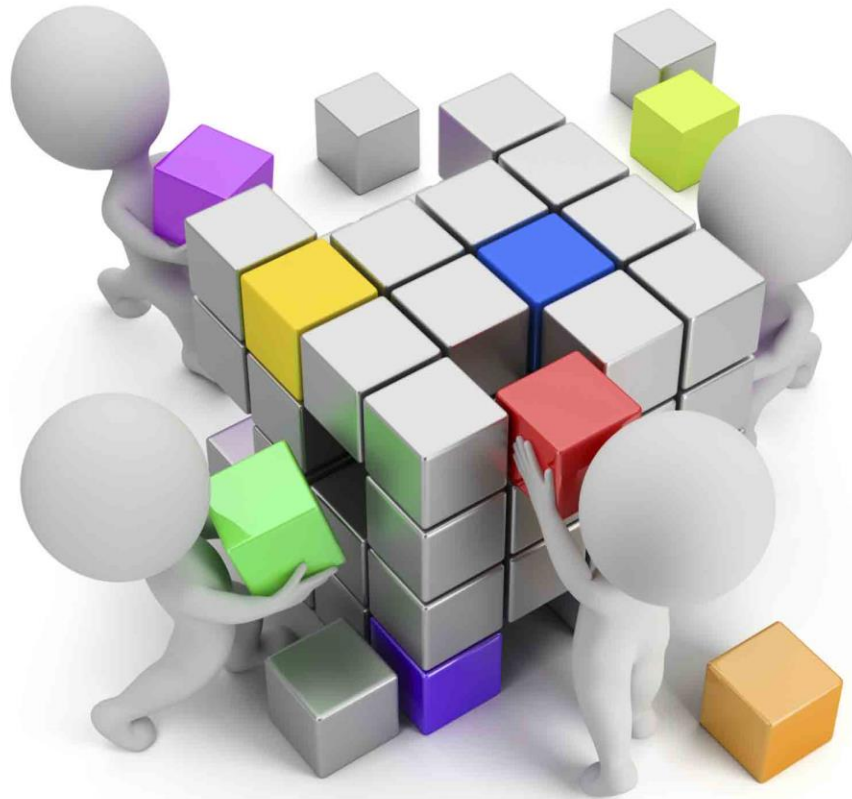
Simple system

Complicated system

Customer solution (what we test)

Knowledge and passion

4 testing teams consisting of 60 professionals

Reliable helpers

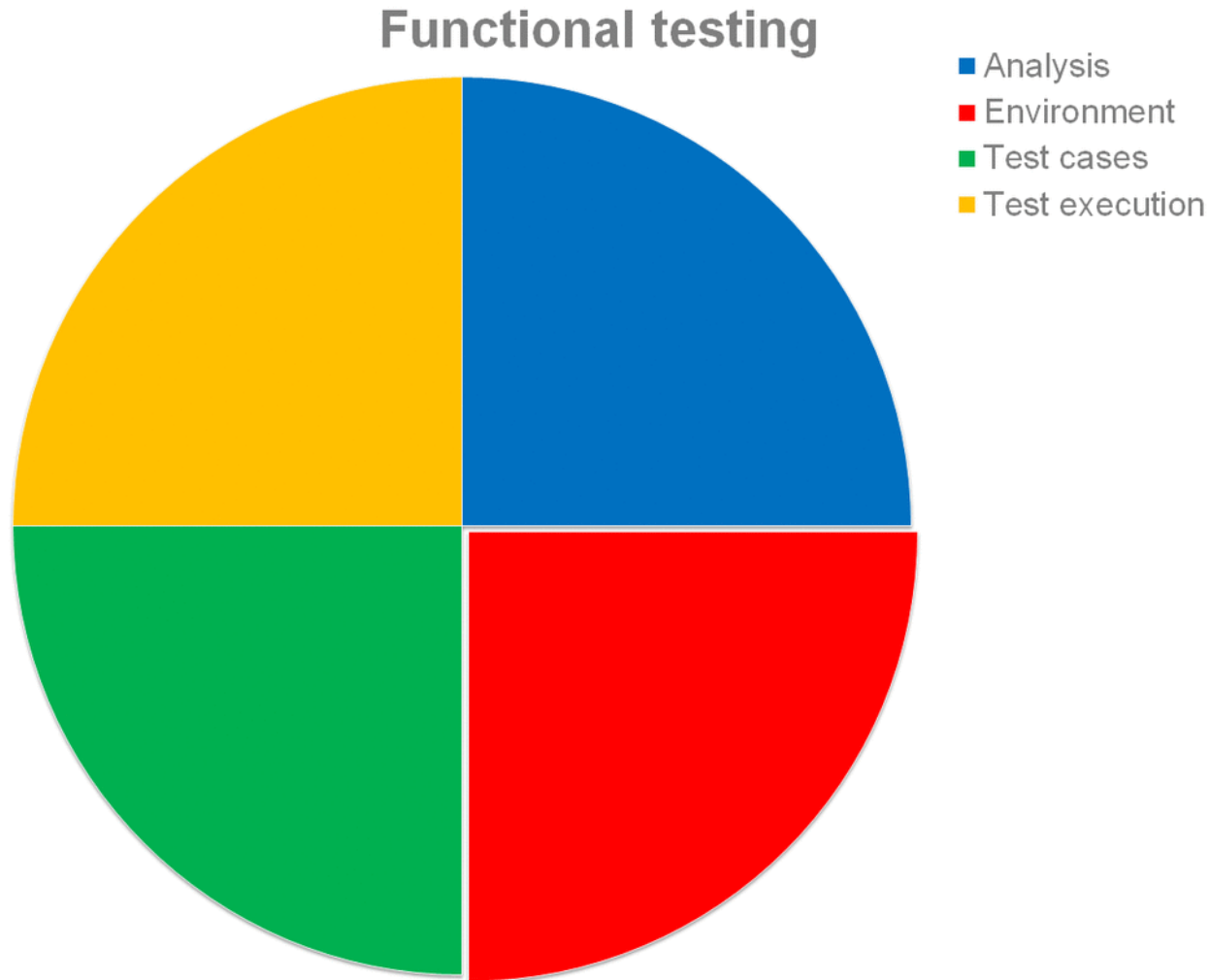**Automated** tests of **most functionality**, installation, reporting

...but it is still not enough

Main testing activities

Functional testing

- Analysis
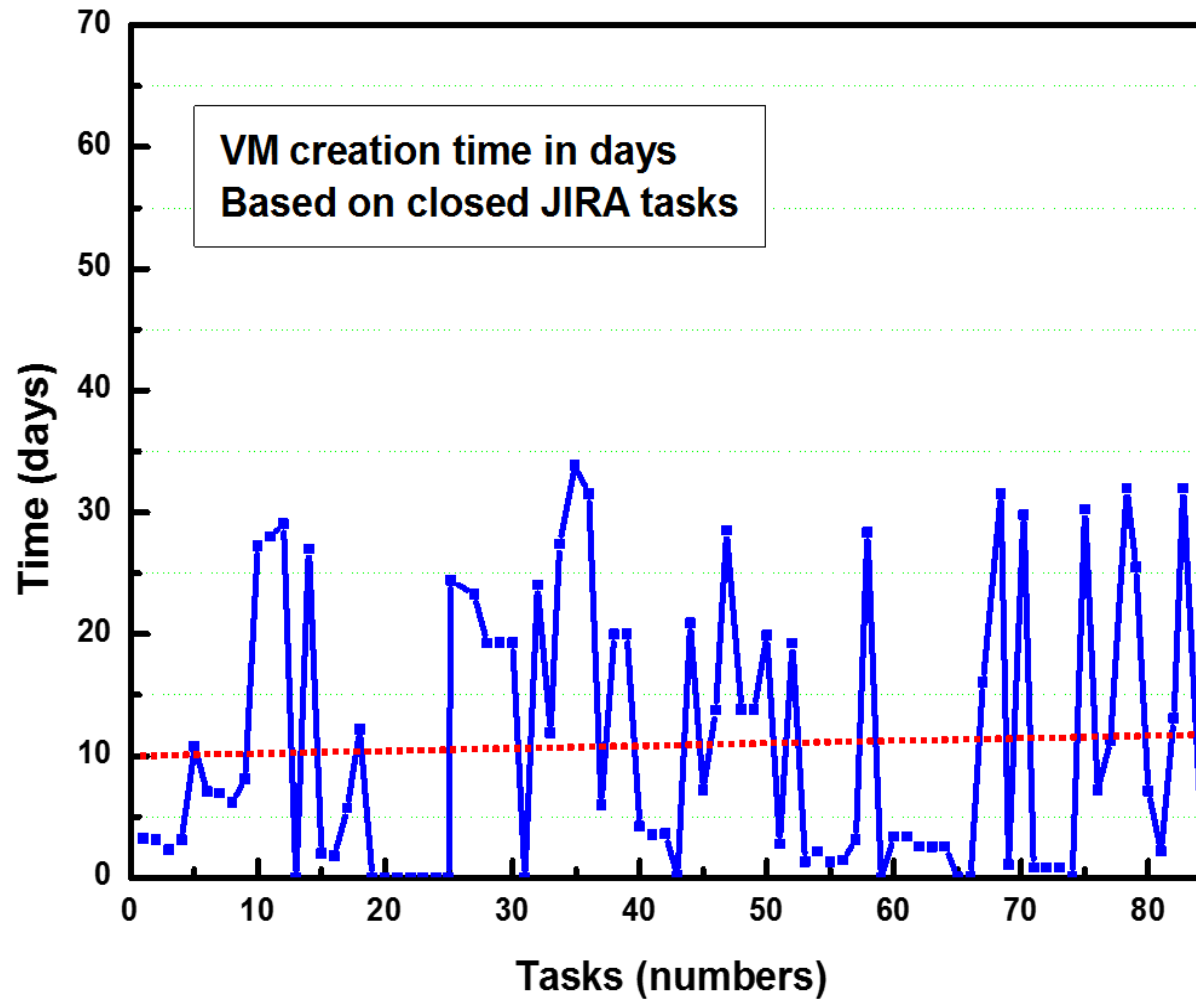- Environment
- Test cases
- Test execution

Previously (1/3)

Clone existing environments:

- work done by technical specialist

- not up-to-date

- sometimes technically not correct environment

Previously (2/3)

VM creation time in days
Based on closed JIRA tasks

Previously (3/3)
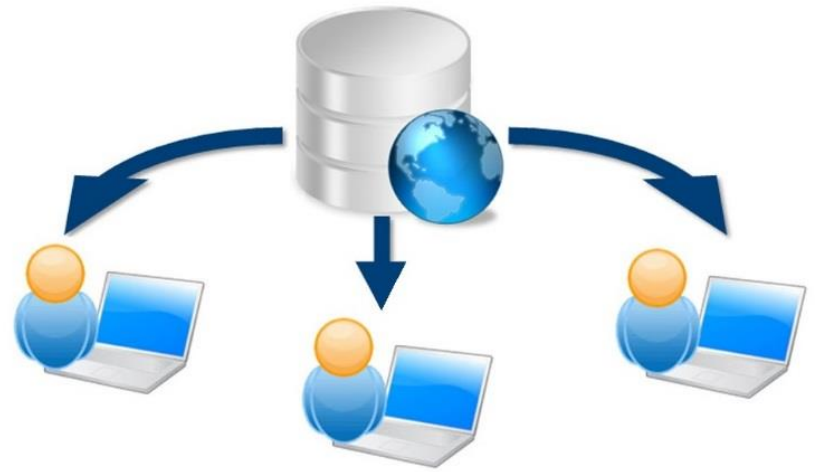
Common environment:

- unexpected restart

- deleted log files

- corrupted test data

How to solve it

Common etalon environments with

self-service portal

CSP portal

Home   My Space ▾   Customers ▾   Builds ▾   ICO ▾   VMs ▾   FAQ   Logout

Welcome to Cards Self-Service Portal (CSP)!

Follow us on Intranet

Short description how to use it:

1. My Space - Your customized CSP space:
   - Customers:
     - Private Systems - You can add your private system for test compilations and project baseline for system
   - VMs:
     - Environments - List of your VMs
     - Firewalls - Manage firewalled IP addresses for your VMs
     - IPs - List of your used and free IP address (slots)
     - Machines - List of VM machines which own you
     - Machine Users - Add additional users for managing states of your VM machines
2. Customers:
   - Print Update - You can update newest Customer System modules (Print files)
   - Modules Diff - You can compare 2 System print files or module lists
   - Modules Merge - You can merge two lists of modules in one
   - Modules Search - You can search any module in all Customer System prints
3. SupBot:
   - Build For Test - Possible to compile modules for testing
   - Build For Delivery - Compile modules for Delivery process
4. ICO - For ICO delivery
5. VMs:
   - TPLs (Etalons) - Possible to clone TPL virtual machines to your test VMs
6. Admin - Administration panel

Etalons list

Home   My Space ▼   Customers ▼   Builds ▼   ICO ▼   VMs ▼   FAQ   Logout

VMs - Etalons

✓ Clone

	Machine Name	Type	Snapshot Name	Machine Owner	Description
➕	AMS RBBH SOLUTION - 2 Machine(s) - RAIFFEISEN BANK - Owner: Jelena Sirmane				
➕	BELINVEST RTPS - 2 Machine(s) - BELINVESTBANK - Owner: Aivis Jekabsons				
➕	BPC Full - 7 Machine(s) - BANK PROCESSING CENTER - Owner: Julija Maliseva				
➕	BPC RTPS (Irakli) - 2 Machine(s) - BANK PROCESSING CENTER - Owner: Irakli Khubashvili				
➖	BRS AMS - 1 Machine(s) - BANK RUSSKIY STANDART - Owner: Regina Lenova				
14	BRS-0-1364	ADB	20151001	Regina Lenova	http://intranet.konts.lv/pages/viewpage.acti
➕	BRS CL2 WD2 - 2 Machine(s) - BANK RUSSKIY STANDART - Owner: Inese Abolina				
➕	BRS CL2DCI WD2 Mini - 1 Machine(s) - BANK RUSSKIY STANDART - Owner: Aleksandrs Iljins				
➕	BRS Clearing - 2 Machine(s) - BANK RUSSKIY STANDART - Owner: Janis Petronis				

Environments list

My Space - VMs - Environments					

RePatch Env · **Drop Env**

	Machine Name	Type	IP Address	Status	Server	Description
−	**AMS RBBH SOLUTION - 2 Machine(s) - RAIFFEISEN BANK - *** Your Etalon *** - Edit**					
1	RBBH-0-837	ADB	10.57.8.107	Done	MICRO13	AMS Front office ...
2	RBBH-0-838	ADB	10.57.8.108	Done	MICRO13	AMS Back office ...
⊹	**BRS AMS Clone 1444120265 - 1 Machine(s) - BANK RUSSKIY STANDART - Edit**					
⊹	**BRS CL2DCI WD2 Mini Clone 1444027086 - 1 Machine(s) - BANK RUSSKIY STANDART - Edit**					
⊹	**RI1_FullInHouse_3G+4G Clone 1441967605 - 1 Machine(s) - RI (Reference Implementation) - Edit**					
⊹	**UPC AMS FULL - 1 Machine(s) - UKRAINIAN PROCESSING CENTER - *** Your Etalon *** - Edit**					

VM management

	Machine Name	Type	Server	IP Address	Status	User Notes
My Space - VMs - Machines						
✎ Notes						
⊟ [blurred] - 1 Machine(s)						
1	TEST-320-2104	ADB	MICRO13	10.57.12.15	Done	
⊟ [blurred] - 2 Machine(s)						
2	TEST-0-1589	ADB	MICRO13	10.57.10.88	Unknown	
3	TEST-0-1590	ADB	MICRO13	10.57.10.90	Unknown	
⊟ Jelena Sirmane - 6 Machine(s)						
4	BRS-438-2684	ADB	MICRO7	10.57.10.155	Done	
5	BRS-440-2691	ADB	MICRO7	10.57.10.147	Done	
6	RBBH-0-837	ADB	MICRO13	10.57.8.107	Done	
7	RBBH-0-838	ADB	MICRO13	10.57.8.108	Done	
8	RI-427-2518	ADB	MICRO15	10.57.10.129	Done	
9	UPC-0-737	ADB	MICRO5	10.57.10.75	Done	

VirtualBox Data

State ▾

	State	Snapshot (Current)
1	Running	

Public

Reference Implementations

- Full integrated Card Suite solutions:

    - Front Office

    - Back Office

- Unix and Windows machines

- Automated tests

- Demo configuration

- Proper documentation

- Support and updates

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Custom client environments

- Specific clients configuration

- Specific clients environments (DB, OS)

- Specific deployment (up to 7 machines)

- **Proper documentation**

- **Support and updates**

How we create etalon

Test engineer
Implementation specialist
RI team

Technical specialist

Users

- checks environment
- confirms it
- forwards to technical team

- patches environment
- add it to CSP

- operates with system

Benefit #1

Environment ready for testing

5 min
readiness

Benefit #2

Involving testers quickly

New testers get involved to projects **quickly**

Benefit #3

Own test environment

Own
environment
for every
test specialist

Benefit #4

Environment snapshot and backup

Snapshot

can be done

at **any** time

Benefit #5

Environment export

Export to
Virtual Machine file
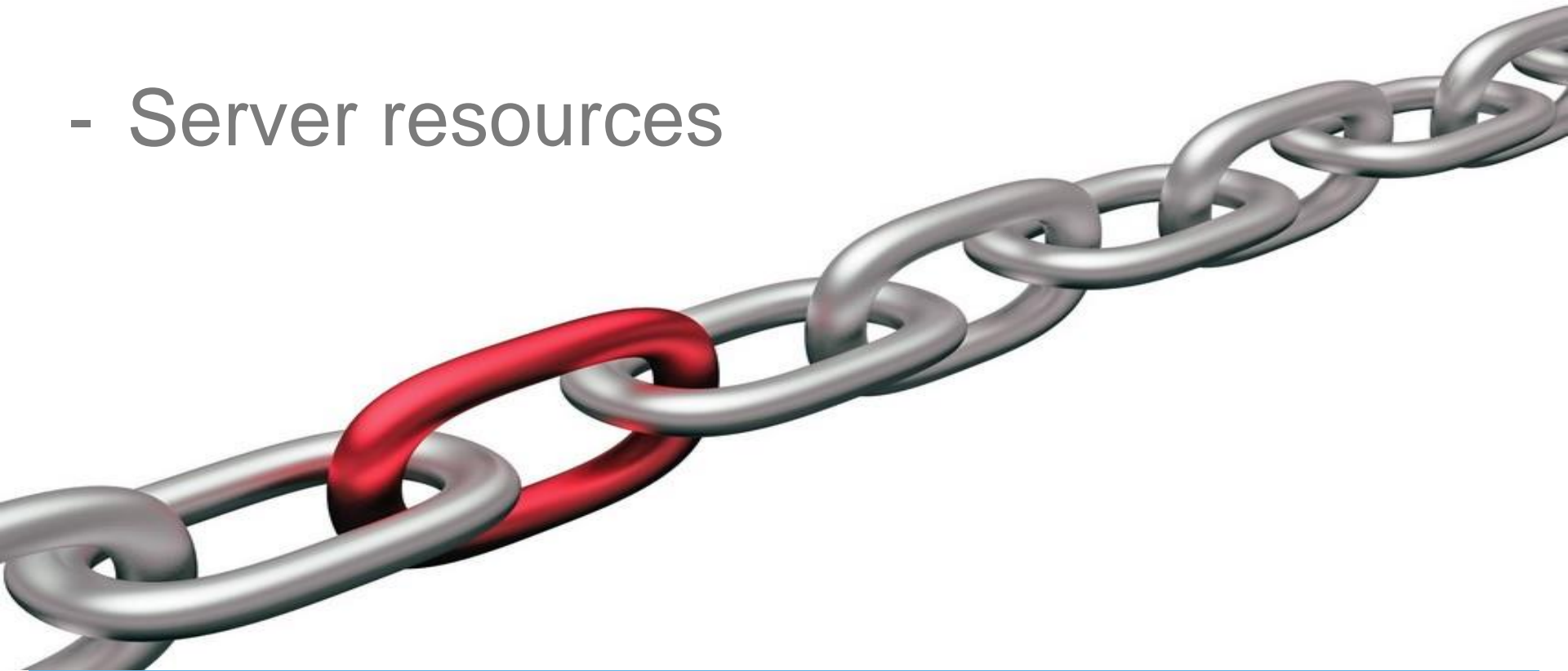for long-term
storing

Benefit #6

Up-to-date environment

All tests are done on environments with the **same configuration**

Challenges we face

- Etalons creation and maintenance

- Server resources

Challenge #1- Etalon maintenance

Problem:
-   Necessity to keep etalon up-to-date

Solution:
-   Special team responsible for Reference Implementation
-   Specialist responsible for Custom environment

Challenge #2 - Server resources

Problem:

- Huge amount of VMs due to easy copying

Solution:

- Switching OFF VMs during weekends

- VMs deletion by users

- Assignment of IP addresses

- Linked clones

Conclusion

- Test specialist allocate much more time for testing not for dealing with environment issues

- Etalon approach should be used:

  - more than two testers involved in project,

  - there are long-term active testing or support,

  - complex system is under test.

Questions
Comments
Emotions

Changing perspectives™

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