

restAssured

restore assurance for backup data

FACTS AND FIGURES

- Average percentage of failure to restore production data 43% *
- Corruption of data is one of main causes for data loss 24% *
- Average data loss last 12 months 2.35 TB *
- Average cost of data loss last 12 months \$900.000 *

- Guarantee on backup content integrity from backup solution vendors none **
- Standard solutions available to guarantee backup content integrity none **

* Information extracted from EMC Global Protection Index 2019

** Information collected based on vendor documentation and market research by Gartner and Metagroup

THE BACKUP ISSUE EXPLAINED

- For backup vendors a backup is successful once the backup **process** was successful
 - CRC checks are performed but they say nothing about the integrity of the content
 - A backup of a corrupt database results in a useless but successful backup
- Thorough restore testing is time-consuming and expensive
 - Quality of testing and reporting depends on the resource that performs the tests
 - Testing is prone to errors due to the manual actions performed during testing
- Less than 30% of the companies worldwide perform any type of restore tests as a monthly recurring activity

* Information consolidated from various ESG, Forrester and Gartner reports

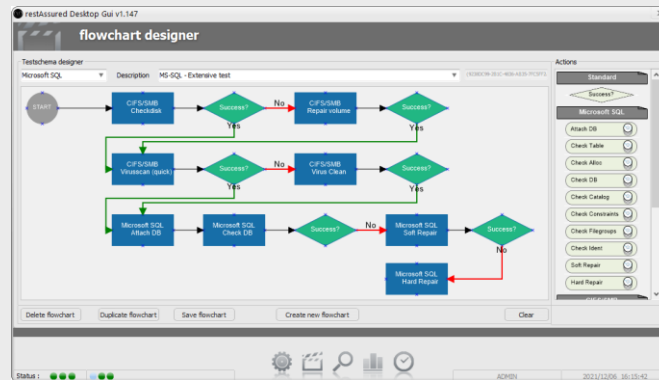
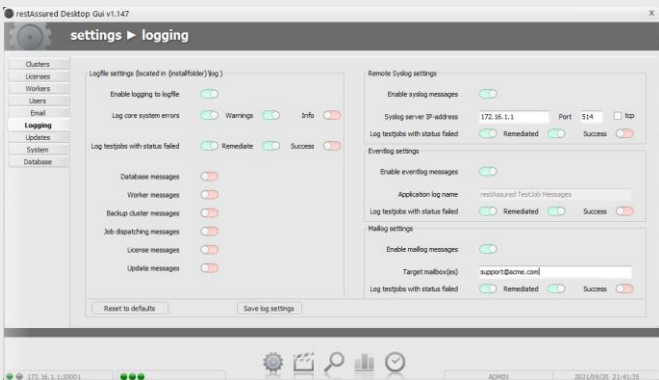
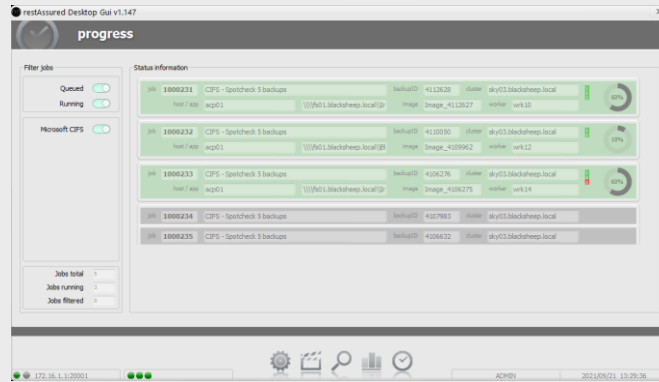
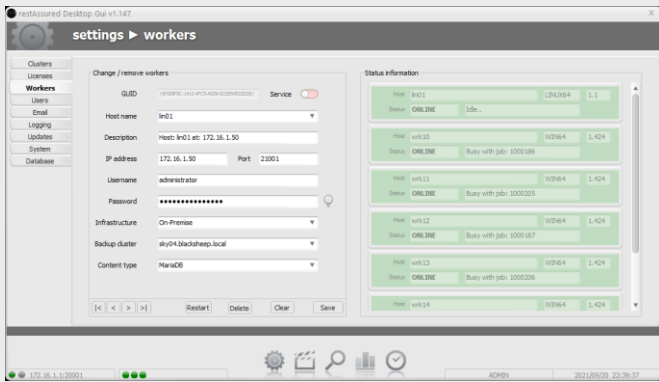
HOW DO WE HELP TO IDENTIFY ISSUES WITH YOUR BACKUP DATA?

- restAssured does automated backup integrity testing based on content characteristics
 - Custom defineable test flowcharts per content type
 - Spotcheck based testing that can run continuously (fully configureable)
 - Extensive data collection from testing for analytics and predictions on current and future issues
- Testing capacity can scale from small businesses to the largest enterprise environments
- Support for on-premise, cloud based or hybrid environments
- Can operate in production or in a completely isolated environment while testing production backups

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SOME SCREENSHOTS



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Automated maillog report

Job : 1000541 (sql01 : SQL01)

Backup cluster : sky04.blacksheep.local	Platform type : Actifio Sky (v10.0.0.2957)
Backup id : 39548329	Backup name : Image_39548327
Hostname : sql01	Backup date : 2021/10/13 - 07:00:00
Content type : SQL DB	Backup size (GB) : 95.43
Application id - name : 171541 SQL01	Expiration date : 2021/10/17 - 07:02:27
(db) : (171542) (CorruptDB2)	

Job created by : ADMIN	Sla template : Local protected - SQL
Job creation date : 2021/10/14 - 16:24:32	Backup policy : Snap Daily
Job start date : 2021/10/14 - 16:24:45	Job class : snapshot
Job finish date : 2021/10/14 - 16:28:41	Performed by worker : wrk11 at 172.16.1.11


```

graph TD
    START((START)) --> A[MS SQL Attach DB]
    A --> B[MS SQL Check DB]
    B --> C{Success?}
    C -- No --> D[MS SQL Soft Repair]
    D --> E[MS SQL Check DB]
    E --> F{Success?}
    F -- No --> G[MS SQL Hard Repair]
    G --> H[MS SQL Check DB]
  
```


Step	Description	Status	Time	Failure info
1	Mount backup	Success	75s	
2	Attach DB	Success	5s	
3	Check DB	Remediated	5s	Multiple issues (see below) were remediated by action "Soft Repair" at step: 4
4	Soft Repair	Success	5s	
5	Check DB	Remediated	5s	Multiple issues (see below) were remediated by action "Hard Repair" at step: 6
6	Hard Repair	Success	5s	
7	Check DB	Success	4s	
8	Unmount backup	Success	75s	

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FREQUENTLY ASKED QUESTIONS:

How is restAssured licensed?

- Licensing is subscription based. A base license includes 1 worker. To scale-out testing bandwidth additional workers can be licensed.

I use Veeam which includes SecureBackup. Why should I use restAssured?

- SecureBackup is meant for devOps support. One can easily re-use backup data in a separate environment. The validation Veeam uses to see if a restore was successful is very limited and based on checking the VM (ping and VMTools check). restAssured does not care if the VM works, deploying a full functional VM can be done in minutes these days. restAssured focusses on the integrity of the database and/or fileshare content as this is the data that's needed when functionality has to be restored after a system malfunction.

Which types of content does restAssured support?

- Currently the most common database types and CIFS (SMB) and NFS shares are supported. The database types supported are: Microsoft Exchange, Microsoft Sharepoint, Microsoft SQL, MySQL, MariaDB, PostgreSQL, MongoDB, Oracle. More database types can and will be added based on customer requests.

I use Veeam and Rubrik in my environment. Do I need multiple restAssured base licenses to test both of these environments?

- No, 1 restAssured base license supports multiple backup environments. For example; a company that uses 4 Actifio Sky appliances and implemented Veeam for certain VMs only needs 1 base license. They do however need multiple worker licenses as workers are assigned to a specific backup environment.

FREQUENTLY ASKED QUESTIONS (continued):

Is my backup data altered by restAssured?

- restAssured is using a clone of the original backup image. The original backup data will not be changed. For example; if a restAssured test flowchart containing remedial actions has completed, the report will show exactly which issues were remediated. If the original backup is restored these same actions must be performed again to ensure the backup can be used. restAssured does offer the possibility to keep the backup-clone online after a completed test (the worker will switch to “service” mode). This way the corrected data can be easily copied from the worker and used to restore functionality.

Does restAssured honor the GDPR guidelines?

- No actual data from the backup is transferred between the restAssured components. There is also no backup data present in the restAssured databases. Only test statistics and backup characteristics like “type of backup”, “type of content”, “backup SLA” and ofcourse the names of the databases and/or shares. Both restAssured databases are encrypted and all information that might compromise security is also encrypted by itself.