BlueSpice MediaWiki

Unboxing Cloud

How we organize continuity and security in the BlueSpice Cloud

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www.bluespice.com

Agenda

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Agenda

- Backup
- Security
- Continuity
- Disaster Recovery

Backup

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Backup - Purpose

- Ensure general operability
- Protect against data loss in disaster scenarios
  - Data center outages
  - Service outages
  - Spam and hacker attacks
- Meant to recover whole instances, not individual files
- Only for use by Hallo Welt!

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Backup - Schedule

- All data (database, files, configuration) is backed up hourly
- All running data of the infrastructure is backed up hourly
- We keep
  - Last 4 hours
  - Last 7 days
  - Last 3 months
- All backups are created automatically

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Backup - Safety

- Stored in two physical locations, both located in Bavaria
- Sync to second location is done daily
- Backups are stored encrypted
- We use a backup manager for this

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Backup - Restore

- Backups can be restored on demand
- Restoration is semi-scripted
  - Depending on the root cause of the restore request, there may be different tasks to be done
- Restoration takes about 15 minutes
  - Secondary data has to be rebuilt

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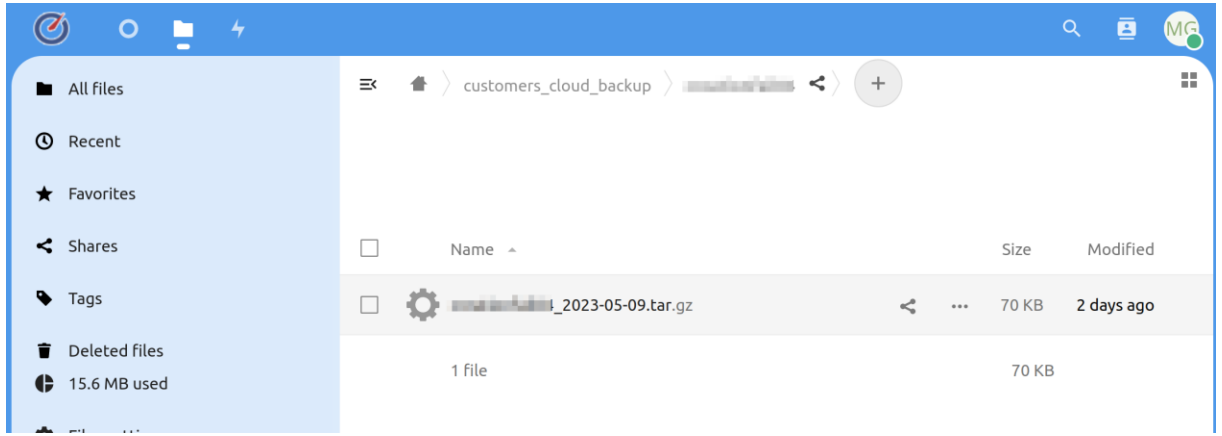
Customer accessible backup

- On request, we can provide a daily backup file
- You will get access to a NextCloud file store
- Backup is delivered on a daily basis and can be downloaded from there



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Data retention on contract termination

- Instances cannot be deleted directly
- First step: archive
  - Instance is taken offline
  - Data is put to an archive
- Second step: deletion
  - Archived data is deleted after 4 weeks or earlier upon request
- For evaluation wikis, retention period is 1 week

Security

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Security – Access control

- Access to infrastructure means access to all data
  - Managed centrally
  - Access is only granted to very few admins after management confirmation
- Access to individual instances
  - Hallo Welt! does not have access to your instance by default

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Security - Encryption

- Data at rest
  Stored on an encrypted block storage
- Data in transit
  All traffic is secured
- Data in action
  No encryption possible

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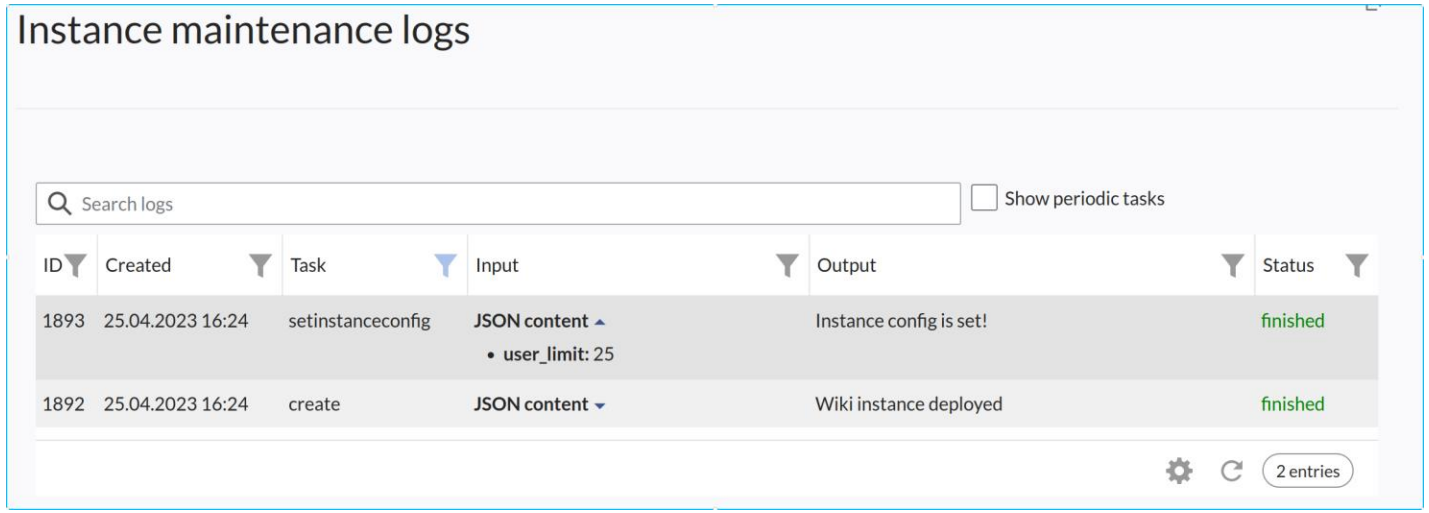
Security - Operational

- All external traffic is terminated in a loadbalancer
- Access is regulated by firewalls
- Various networks for different purposes

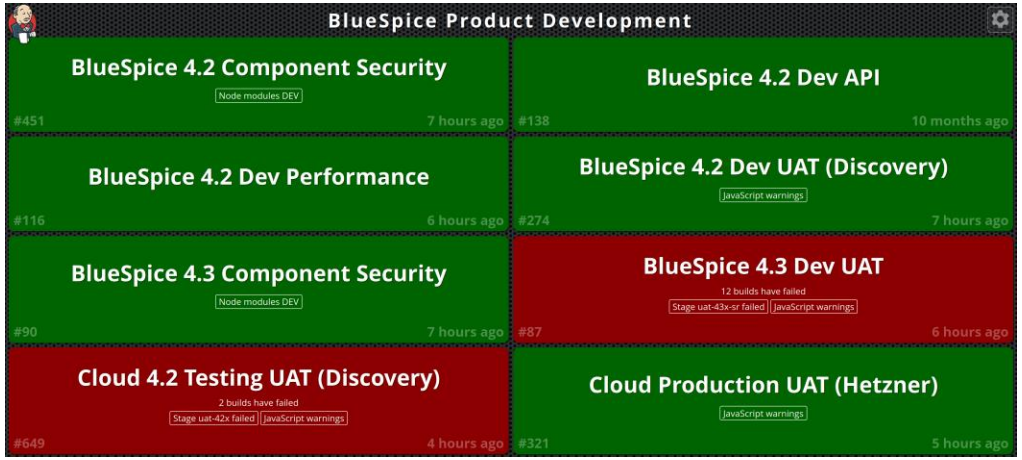
Security - Logging

- All operations on instances are logged



Security – Development

- Trivy security checker for docker images
- Security checks on BlueSpice code
  - Check 3rd party libraries on a daily basis
- Strict code review



Excursus: Handling BlueSpice vulnerabilites

- Hallo Welt! participates in the CVE program
- We are a CNA for BlueSpice
- List of vulnerabilities: https://en.wiki.bluespice.com/wiki/Security:Security_Advisories
- Disclosure policy: https://bluespice.com/filebase/vulnerability-disclosure-policy/

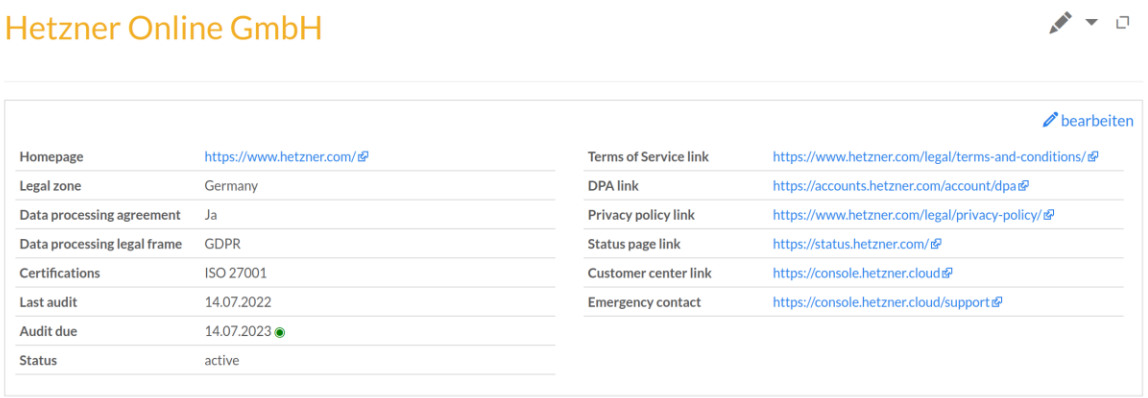
Security Advisories

This page is approved

Release name	Release date	Title	References	Summary
BSSA-2022-01	2022-01-31	XSS attack vector in Search Center	CVE-2022-2510	JavaScript in search field is reflected back to the browser.
BSSA-2022-02	2022-11-15	XSS attack vector on regular pages	CVE-2022-2511	Arbitrary HTML injection through the 'title' parameter
BSSA-2022-03	2022-11-15	XSS attack vector on regular pages	CVE-2022-41611	Arbitrary HTML injection through main navigation
		XSS attack vector on regular	CVE-2022-41789, CVE-2022-41814,	

Excursus: GDPR

- Due diligence process when choosing service providers
  - Selection process and GDPR compliance is assessed and documented
- Focus on European based providers
  - BlueSpice Cloud is hosted in Germany at Hetzner
  - Mail service is provided by MailJet



Hetzner Online GmbH

bearbeiten

Homepage	https://www.hetzner.com/	Terms of Service link	https://www.hetzner.com/legal/terms-and-conditions/
Legal zone	Germany	DPA link	https://accounts.hetzner.com/account/dpa
Data processing agreement	Ja	Privacy policy link	https://www.hetzner.com/legal/privacy-policy/
Data processing legal frame	GDPR	Status page link	https://status.hetzner.com/
Certifications	ISO 27001	Customer center link	https://console.hetzner.cloud
Last audit	14.07.2022	Emergency contact	https://console.hetzner.cloud/support
Audit due	14.07.2023		
Status	active		

Continuity

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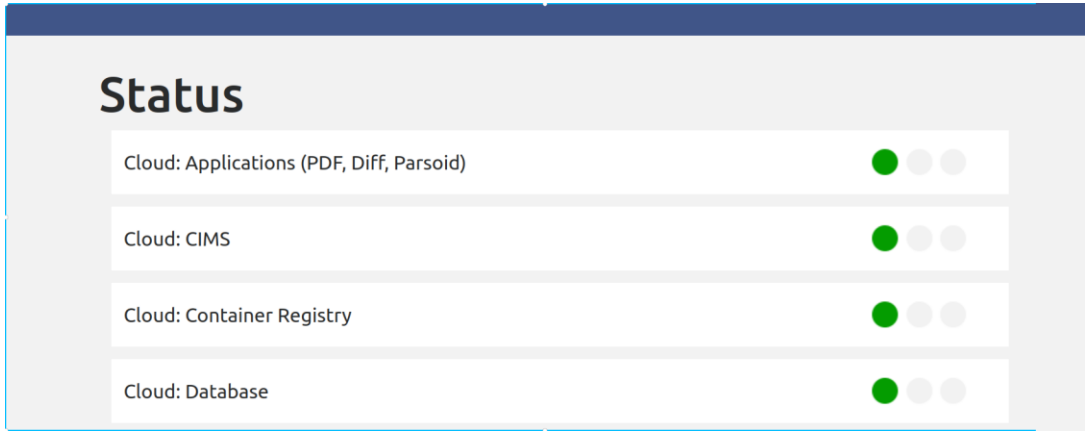
Continuity - Monitoring

- Basic server params like CPU, memory, network, disk space (Zabbix)
- Performance of one reference system (Zabbix)
- Automated tests in one reference system (Selenium)
- Current service status can be seen on https://status.bluespice.com



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Continuity – QA system

- Cloud has 3 almost identical systems
  - DEV for development
  - QA for pre-testing
  - PROD for production
- All changes must be deployed to QA before they go to PROD
  - This includes infrastructure as well as product

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Continuity – Technical measures

- Self-healing setup
  - Docker swarm is set up to restart services if they are stale
- Redundancy
  - The swarm consists of several machines
  - Fail-over mechanisms ensure a service is moved if one machine goes down
  - This also allows for planned maintenance of the servers

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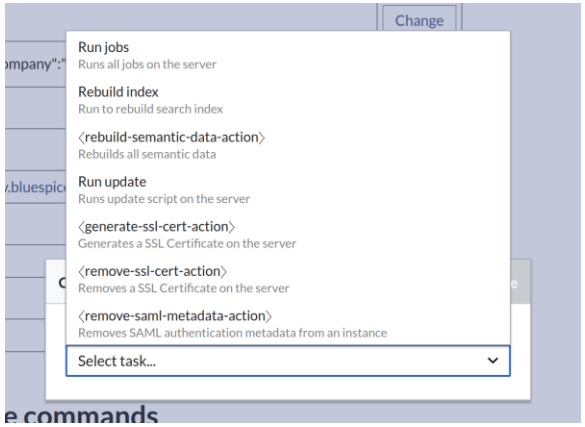
Continuity – heavy standardisation

- All cloud instances are set up the same
- All operations on instances are scripted and reproducible
- We do have an API for allowed operations
- Standard operations are only done through management interface



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Continuity – Knowledge transfer

- All personal skills are held redundantly
- All changes to the cloud are peer reviewed
- Critical operations are done in team sessions
- We will increase our team by July

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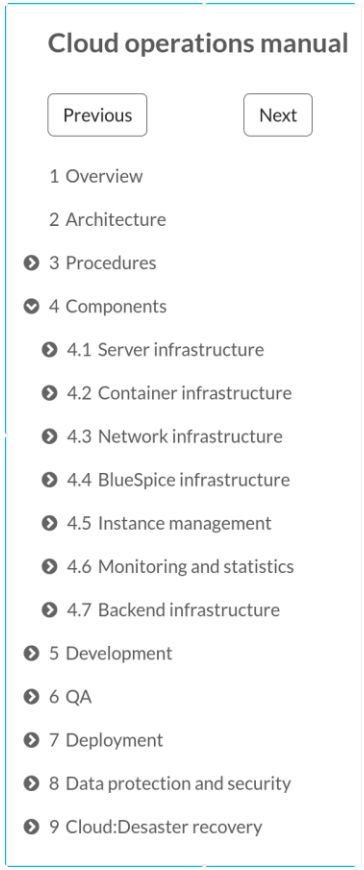
Continuity – Cloud operations handbook

- We are a wiki company!
- All operations are documented
- Architecture is documented
- Troubleshooting is documented



Disaster recovery

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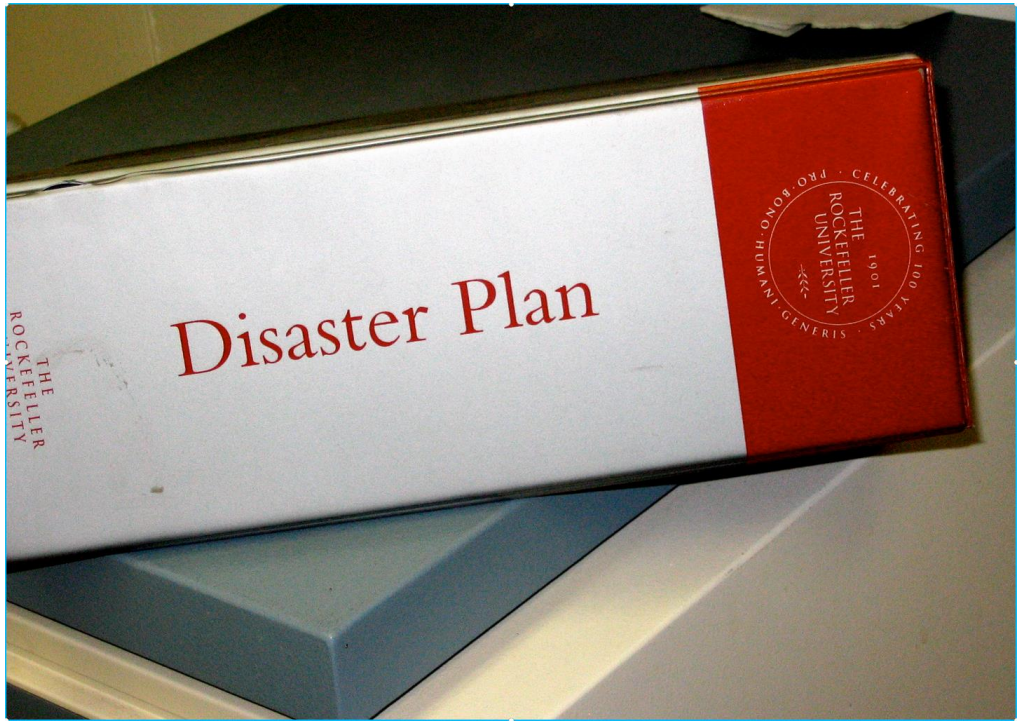
Desaster recovery – Restoration plan

- Documentation in our Cloud operations handbook
- Continuously updated



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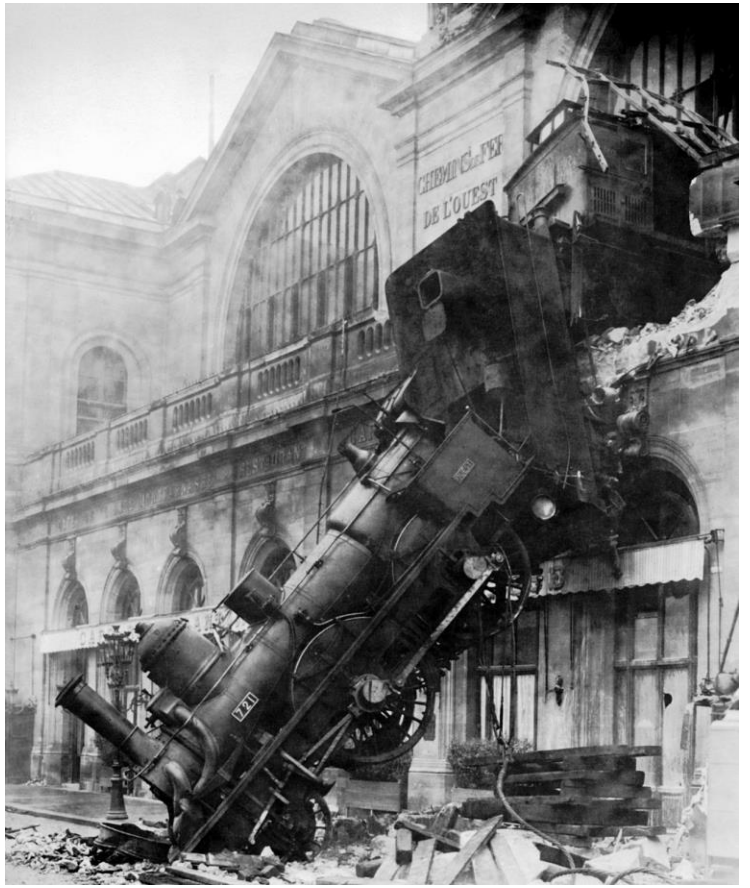
Disaster recovery – Test recoveries

- Various outages and their effects were tested in DEV and QA
- Re-creation of the whole swarm was proven to be possible



Get in touch

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