



Hosting Terms

Upon Servoy's acceptance of the order under the relevant Product Order Form and against reimbursement of the relevant Hosting fee, Servoy shall make the Hosting available on an annual subscription basis. The Hosting fee is indicated in the Product Order Form (and/or its Addendums). If Hosting is agreed under the relevant Product Order Form, these Hosting Terms are applicable and form an integral part of the Agreement. Depending on which party signed the Product Order Form with Servoy, either an End-User or a Partner, these Hosting terms are applicable as to either such End-User or such Partner.

Subscription levels and termination.

The right to access to the Servoy Software as part of the Hosting shall cease upon termination of the Agreement. Provided that in the event the Agreement is terminated in accordance with the Terms & Conditions and such termination is attributable to Servoy, the annual upfront Hosting fee shall be reimbursed for the possible remaining non-used months of the relevant year.

Connectivity.

As part of the Hosting, Servoy assumes responsibility only for configuration of the data center's network equipment as part of the hardware infrastructure. End-User/Partner must provide network hardware at its location and manages the (internet) connection at its location.

End-User/Partner is responsible for the connection between its location (and users) and the Hosting data center of Servoy. The Hosting relies on an Internet protocol connection. If the connection is slowed or becomes unavailable, the hosted Servoy Software may become unresponsive or unusable. Inadequate performance by network connections and/or computer infrastructure not under Servoy's control is not covered by any Servoy's (environment availability) commitment under these Hosting Terms.

Outsource licenses.

Since the Servoy Software is an application platform product, End-User/Partner represents and warrants that at all times it shall hold a valid license from any third party supplier and/or from any other owner of rights regarding a third party application and/or results obtained by using the Servoy Software, to use and to outsource the Hosting of the same. End-User/Partner shall be responsible for all fees possibly charged by any third party supplier and/or any other owner of rights in connection with the Hosting.

Restrictions.

Hosting shall be subject to the following restrictions. End-User/Partner shall:

- only (*allow*) use the Servoy Software for its own business purposes.
- restrict usage of the Servoy Software to the purchased *subscription levels*.
- use unique logon IDs for individuals, devices and processes (i.e. logon IDs shall not be shared).
- not use any method, software or technology which hides or understates the actual number of users accessing the Servoy Software (e.g. by circumventing the Servoy Software log-on process).

End-User/Partner shall be responsible for compliance with the Agreement by any third party granted access to the Servoy Software.

Release Management.

At the commencement of the Hosting the latest generally-available Major Release shall be deployed unless otherwise agreed. Thereafter, Servoy shall in its discretion apply new Releases in accordance with Servoy's standard operating procedures, provided, however, that (1) Servoy shall give reasonable advance notice and obtain End-User's/Partner's consent prior to applying any such update; and (2) End-User/Partner may withhold consent if it reasonably believes that applying such update shall cause material disruption to its business. In the event End-User/Partner withholds its consent, Servoy shall not be responsible for any changes in software or system performance resulting from not applying such update. Notwithstanding the foregoing, Servoy may immediately shut down all environments if End-User/Partner withholds consent to an update and the absence of such update causes, in Servoy's reasonable opinion, material risk to the security of Servoy's systems.

Environment Availability and Security.

Information as to availability percentage, calculation method of this availability, planned maintenance windows, service levels of response and resolution targets etc. is communicated in the document 'SC-SLA' (see below). The commitment regarding availability is not applicable in cases where the environment is unavailable as a result of (a) the acts or omissions of End-User/Partner or its employees, contractors, agents; (b) the failure, malfunction, or limitation of throughput of equipment, network, software, applications or systems not owned or directly controlled by Servoy; (c) circumstances or causes beyond the control of Servoy, including, without limitation, events of force majeure and third-party attacks on the environment (such as ping and denial of service attacks); or (d) scheduled outages such as outages during planned maintenance windows.

Subcontracting.

Servoy may subcontract Hosting to a Contract party (in this case Amazon Web Services; <https://aws.amazon.com/agreement/>). Parties agree that these AWS terms regarding the specifications, guarantees, performance, conditions, periods, indemnifications and (limited) liabilities of the actual provider of the infrastructure resources for the Hosting are solely applicable as to the same. Consequently, the guarantees and liabilities of Servoy regarding this aspect (= the infrastructure resources for the Hosting) are under no circumstances different or more extensive than those of said Contract party unless such a liability is fully attributable to Servoy and is caused by gross negligence and/or willful intent of Servoy.

Exclusions.

The following items are excluded from the scope of Hosting. This list of excluded items is presented only for clarification and this list does not represent a comprehensive list of all excluded items. Certain of these items may be performed under a separate, chargeable Services project as may be agreed by the parties:

- Project-based Services, including implementations (new modules, sites, etc.), upgrade projects, training, testing, configuration or process changes, and data migration.
- Customizations, third-party products, interfaces and integrations are considered out of scope, except as may be expressly agreed in writing by Servoy.
- On-site support.
- Penetration testing, stress testing and other vulnerability testing outside of standard Servoy practice are excluded. Any such activities conducted by End-User/Partner without Servoy's knowledge and prior written consent is highly dangerous and will be treated as a cyber-attack.
- Data cleansing or fixing of data integrity issues.
- Security of local area network and client machines is End-User's/Partner's responsibility. End-User/Partner is responsible for any impact that a breach of local area network or client security may have on the service levels outlined in these Hosting Terms.
- End-User/Partner is responsible for complying with laws and regulations applicable, including laws and regulations governing the storage and use of personal credit information, and privacy laws and regulations applicable to End-User/Partner in its role as data controller.



SC-SLA | Servoy Cloud Service Level Agreement

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1. Service Description

Besides the Servoy Developer platform, Servoy offers it's customers the possibilities to both build and run their Servoy business applications Software As A Service (SAAS) on the Servoy Cloud.

Servoy Cloud is divided into the following two sections:

A. Servoy Cloud Build Pipeline

B. Servoy Cloud Production Hosting

1.1 Servoy Cloud Build Pipeline

From here to be called 'Pipeline'. Involves the means to build, test and store a Servoy application. Depending on the Pipeline plan chosen, the Pipeline consists of various subsystems, listed in the table below.

Component	Description
Unified UI	Online control center providing an overview of the subsystems of the Pipeline and the state of the various build environments to the user.
Source control (Git / SVN)	Used for source-code version control
Case management	Project management application that can be used for agile project management
Build configurator	Ability to configure the settings of each build, choosing Servoy versions and turning on/off tests and reports.
Build engine	Software enabling automated builds to be generated from source code to a binary application
Source backups (daily)	Backup of the entire source code management repository.
Env backups (daily)	Backup of the entire build-pipeline
Log management	Providing a single point of view for the logs of both the Servoy-built applications and databases as well as the Pipeline sub-systems
Monitoring	Monitoring the health of the entire Pipeline constantly by our DevOps teams. Pipeline health can be viewed by customers also.

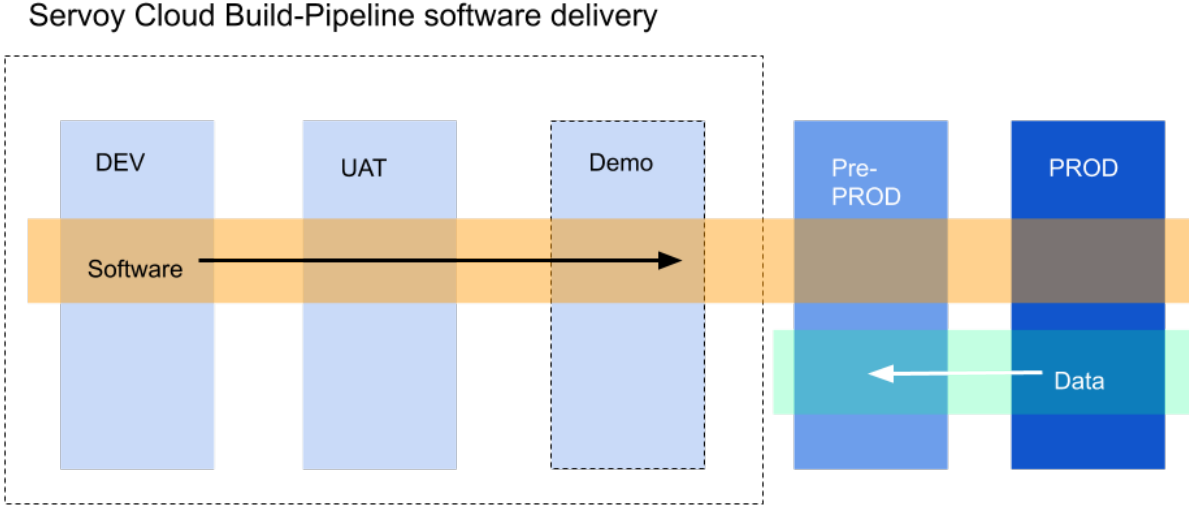
Unit testing	Unit testing enables software developers to check if their code (functions) does not produce incorrect outcomes.
Code analysis	Report showing the quality of code
Code coverage analysis	Reports showing the amount of code that is used in the application and the amount of unused or 'dead' code.
E2E testing	A means to consistently mimic end-user behaviour in automated tests that run each time the software is built.
Solution creation	Making the Servoy application built from source code available in an online environment
WAR creation	Making Java based executable .WAR file of the built application available for download.
Docker image creation	Making a Docker image of the Servoy solution available containing both an operating system, application server and the Servoy application.
Daily builds	The ability to build a Servoy solution from code to binary on a daily basis
Hourly builds	The ability to build a Servoy solution from code to binary on a hourly basis
Continuous builds	The ability to build a Servoy solution from code after every commit the source control system (Git / SVN)
Dev environment	Environment that mirrors what developers are doing and has the latest changes
UAT environment	Environment allows stakeholders to test new versions of the software before they will be released.
Demo environment	Environment that can be used for demo purposes

1.1.2 Pipeline: Software Delivery Support

Servoy offers customers a reliable, yet flexible system for producing high-quality software enabling continuous delivery.

The Pipeline supports a quality assured software delivery process where Servoy source code is built into an application that can be automatically end-to-end tested by adding various environments to the build flow. More environments means smaller steps with less errors.

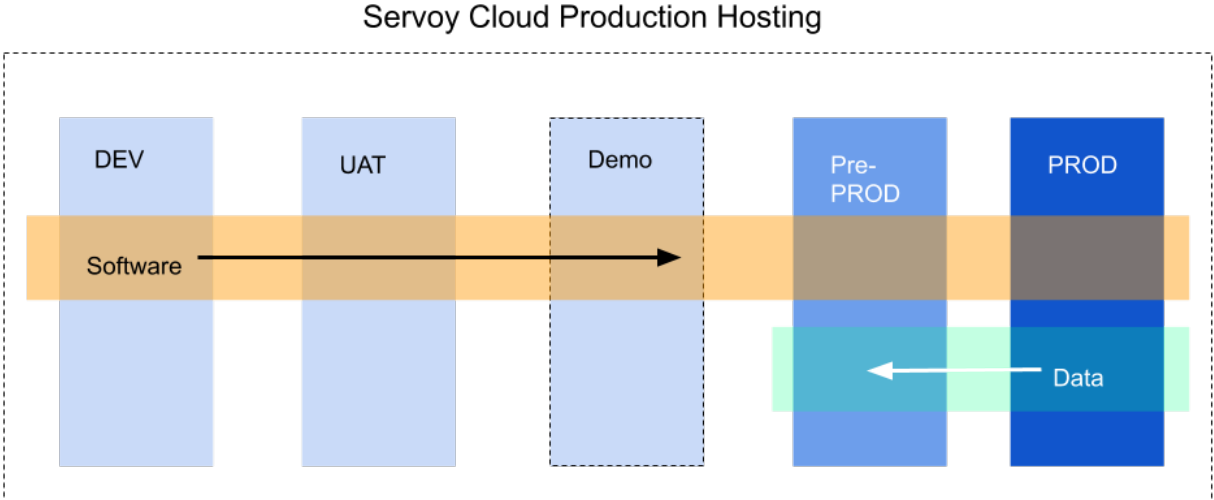
An example of environments in the build Pipeline can be seen in the figure below:



1.2. Servoy Cloud Production Hosting

The Servoy Cloud Production Hosting environment is designed to work together with the Servoy Cloud Build Pipeline and offers managed production hosting for Servoy business applications.

Servoy cloud production hosting offers a resilient and scalable hosting solution that leverages zero-downtime deployment- and has elastic scaling capabilities. It aims at relieving Servoy users from the technology burden and allows them to focus on making high-quality software.



Servoy Cloud Production Hosting offers the following components:

Component	Description
Your Servoy based business application(s)	Servoy Applications that you make with Servoy Developer
Cloud Control Center (production env.)	Online environment enabling customers to monitor their application builds and configure testing, reporting and alerts. The build artifacts (Docker images, application binaries (.WAR)) can be downloaded here.
Monitoring & logging	A dashboard application where users can see the performance of their cloud applications and read error logs from the various components or subsystems like the database, java virtual machine, application server and Servoy application.
Pre-production environment	Mandatory environment that is used as the final step before software is deployed to production.
Production database backup	Daily backups of the application database are made.
Backup Source (Git / SVN)	Daily backups of the customer's source code (if applicable) are made.
Backup Pipeline	Daily backups of the entire build Pipeline are made.

2. Service Delivery

2.1 Availability and Monitoring

Servoy strives to provide the best possible availability for both the Pipeline and Cloud Hosting services. Our DevOps teams and automated tools constantly monitor running environments and will make sure that Servoy notifies its customers in the case of a capacity problem causing the application to be unavailable if the situation persists.

2.1.1 Servoy Cloud Build Pipeline

Servoy offers an availability of the Pipeline of 96% during office hours (07:00AM until 07:00PM). Outside this availability window Servoy reserves the right to perform upgrades and security patches to keep the service up to date and secure. These activities might result in temporary service unavailability outside of the availability hours. Also back-end server switching might occur causing a temporary unresponsiveness of some pipeline components.

2.1.1.1 Services measured

Servoy is monitoring the performance and availability of the Pipeline with the support of an objective 3rd party specialized in availability monitoring to guarantee objective measurements. Measuring the availability of the Pipeline components is done according to the table below:

Component	Frequency	Health Check	Note
Cloud Control Center	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps are notified
Project Management Tool	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps are notified
Grafana	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps are notified
Source code repository (SVN/GIT)	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps are notified
Pipeline environments	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps and customer are notified

2.1.2 Servoy Cloud Production Hosting

2.1.2.1 Availability

The Servoy Cloud Production Hosting offering aims at delivering high availability. Availability levels go from level 'A' until level 'I' where 'I' is the highest availability level as can be seen below:

Availability window	96%	99%	99.99%
5 x 7:00-19:00	S	NA	NA
5 x 7:00-19:00	A	B	C
5 x 6:00-23:00	D	E	F
7 x 24	G	H	I

In case of service unavailability Servoy DevOps team is notified via sms, consequently customers are notified via email.

2.1.2.2 Services measured

Besides monitoring the available services using a third party, Servoy also automatically runs end-to-end tests on the hosted applications to guarantee their availability.

NOTE: Tests have to be created by the customer and pass on the Pre-Production environment.

Component	Frequency	Health Check	Note
Servoy production environment(s) (database, application server)	Every 1 minutes	HTTP request, network request, End-to-End test	If the service is unavailable, Servoy DevOps and customer are notified (sms, email)
Your Servoy based application(s)	Every 1 hours	End-to-End Test	If the test fails, Servoy DevOps and customer are notified (email)
Servoy Cloud Build Pipeline components (see 'Pipeline')	Every 1 minutes	HTTP request	If the service is unavailable, Servoy DevOps are notified

2.1.2.3 Availability Conditions

Customer success is pivotal for Servoy. Therefore realizing the highest possible service availability is paramount. In order to achieve this, clarification on the mutual responsibilities of both Servoy as service provider and customers deploying their applications is required.

Servoy reserves the right to view application logs in order to determine if the mutual responsibilities are met.

In order for a Servoy application to be considered successfully deployed and available on the Servoy Cloud, it has to meet the following conditions:

1. The application has to be Successfully built

An application is considered successfully built on the servoy cloud Pipeline when it has no errors and passes correctly implemented automatic testing (Unit Test and End-to-End Test). Writing and correctly implementing these tests (with the Servoy offered technologies) is the responsibility of the customer.

2. The application has to be deployed on the Pre-Production environment where it has to be able to successfully pass End-to-End tests on a (one day old maximum) backup of the production database.

The application also has to be able to perform the required import hooks (that are correctly implemented) to load the production data and required configuration- and test settings.

3. The application shows no errors in the logs on the Pre-Production environment

4. Functionality of applications running on a production environment is only guaranteed for the software functionality that has passed an End-to-End test, and has been successfully tested on the Pre-Production environment.

5. The steps that the End-to-End test on pre-production follows are described and agreed upon with Servoy before the actual application is hosted. Maintaining this test is the responsibility of the customer.

6. Application uptime is guaranteed according to the service window as chosen in the availability plan.

7. Application downtime is only calculated within the service window on deployed applications that meet the above conditions.

8. Only incidents marked as 'blocker' can be used for calculating service availability.

2.1.2.4 Incident Management (Servoy Cloud Production Hosting only)

In case of service unavailability Servoy attempts to restore the service conscientiously as soon as possible. The following support levels are available:

Availability Level	Phone	Mail	Blocker		Critical		Major	
			Servoy Response Time within Availability Window	Servoy Response Time outside Availability Window	Servoy Response Time within Availability Window	Servoy Response Time outside Availability Window	Servoy Response Time within Availability Window	Servoy Response Time outside Availability Window
96%		x	2 hours	4 hours	5 hours	6 hours	8 hours	Next day
99%	x	x	1 hour	2 hours	2.5 hours	3 hours	4 hours	Next day
99.99%	x	x	30 minutes	1 hour	1.5 hours	2 hours	3 hours	4 hours

Incident Level	Description
Blocker	Parts of the application for which an End-to-End test has successfully run in the Pre-Production environment do not function on the Production environment. Performance is more than 100% lower on Production than on Pre-Production environment *
Critical	Performance is more than 25% lower on Production than on Pre-Production environment *
Major	Parts of the application do not function for which no End-to-End test was written and ran on the Pre-Production environment.

* Performance is indicated by the End-to-End test report run on the Pre-Production environment.

2.1.2.5 Incident reporting process

Incident reporting will be done as described:

1. Depending on the availability level chosen, customers can use telephone, email or the reporting form.
2. Incidents that are regarded as 'Blocker' within the availability window require a call to Servoy in order to enable the DevOps team to respond in time.
3. Servoy support responds via email within the required window giving information about severity and expected recovery time.

2.2 Data integrity and Recovery

2.2.2 Customer data recovery

In case customers or end-customers delete data from a Servoy hosted production system by accident, Servoy will offer the following solution:

- Step 1 A recovery environment is spun up with most recent database backup
- Step 2 Servoy customer is instructed on how to access the recovery environment
- Step 3 Customers can read deleted data from recovery environment and restore to production environment.*/**

* Customer is responsible for data restore

** Recovery environment costs are equal to pre-production environment costs and are on behalf of the customer.

2.2.3 Backups & Restore

2.2.3.1 Backup

Servoy ensures data integrity by making daily backups of the Pipeline systems (if applicable):

Servoy Cloud Build Pipeline:

System	Backup action	Interval	Retention period
Source code repository	Disk clone	daily	30 days
PostgreSQL / SQL Server	Cloud storage - Individual database dump	daily	30 days
MySQL	Disk clone	daily	30 days
.WAR file	Cloud storage	daily	unlimited
Docker image	Cloud storage	daily	unlimited
Build Job config.	Cloud storage	daily	unlimited

Servoy Cloud Production Hosting:

For Servoy Cloud Production Hosting backups will also be made of the production server and database.

System	Backup action	Interval	Retention period
Production Application Server	Disk clone	daily	90 days
Production Database Server	Individual database dump	daily	90 days

2.2.3.2 Restore

Backups can be restored within the retention period. Restoring a backup requires a written request by a customer representative who is authorized to sign. Restoring will be performed by the Servoy DevOps team.

Customer representative(s) authorized to sign: 1. 2. 3.

2.2.3.3 Incident investigation

If Servoy is asked to investigate an incident that does not meet the availability conditions or is required to be solved outside of the availability plan, Servoy will charge the customer an investigation- or support fee.

3 Customer Support

Support (depending on the availability level) can be approached within the availability window as described in this document.

Support Level	Contact Type
96%	Email / Incident Management System
99%	Phone / Email / Incident Management System
99.99%	Phone / Email / Incident Management System

3.1 Servoy Contact

Servoy support can be reached via:

Incident Management System	incidents.servoy-cloud.eu
Email	issue@incidents.servoy-cloud.eu
Phone	Europe: +31 20 299 3643

4. Approval

This Service Level Agreement is part of the overall agreement. Both Servoy and the Servoy customer agree on their responsibilities as described in this document.

Approval			
Date		Date	
Organization		Organization	
Name		Name	
Position		Position	
Signature		Signature	