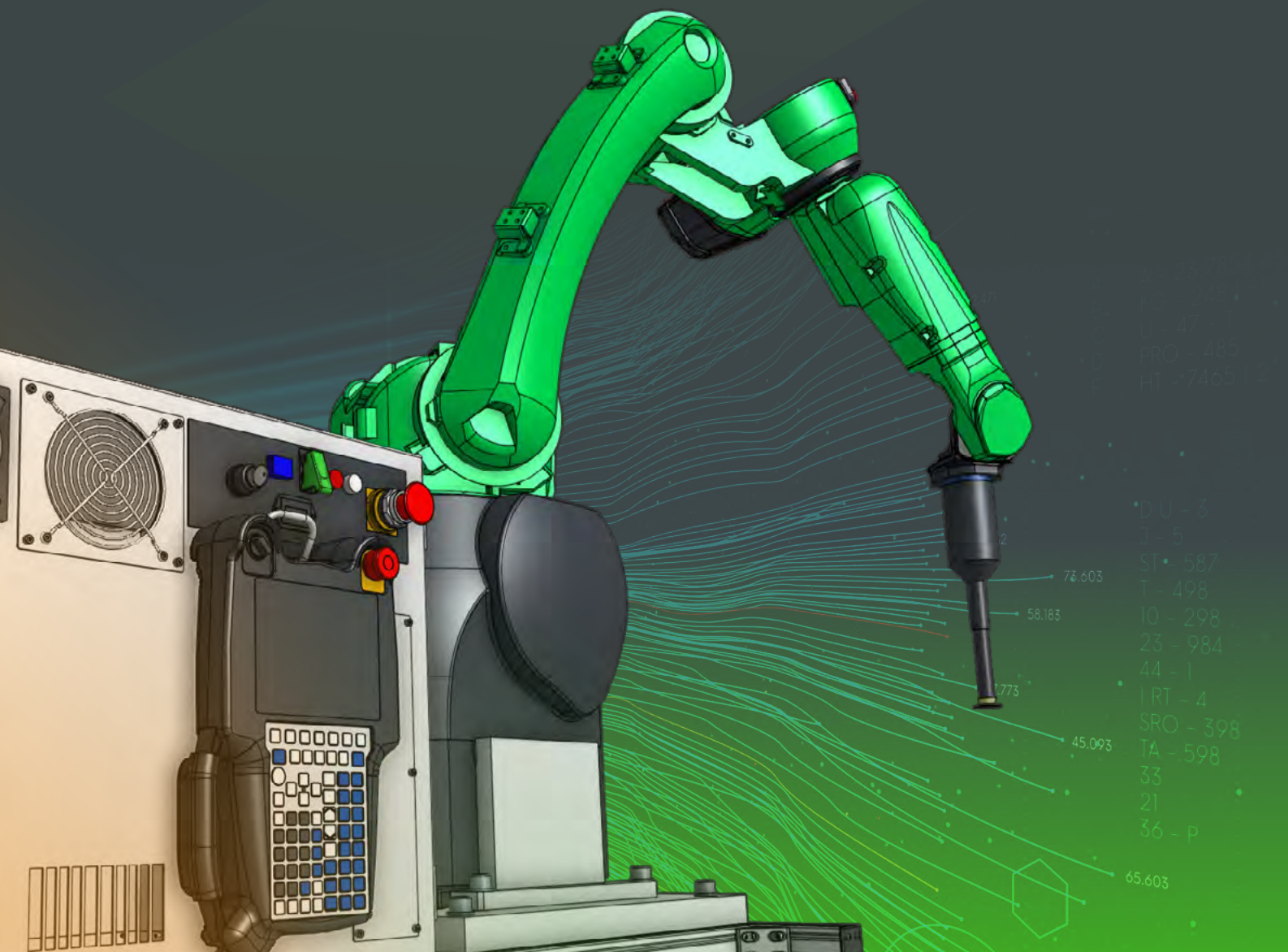


Onshape's Enterprise IT & Security Guide

A practical guide for engineering and IT professionals exploring cloud-native security, compliance, scaling and reliability



Introduction	page 03
Better Collaboration	page 05
Simplified Administration	page 06
Enterprise Scalability	page 07
Security	page 08
How Does Onshape Compare?	page 10



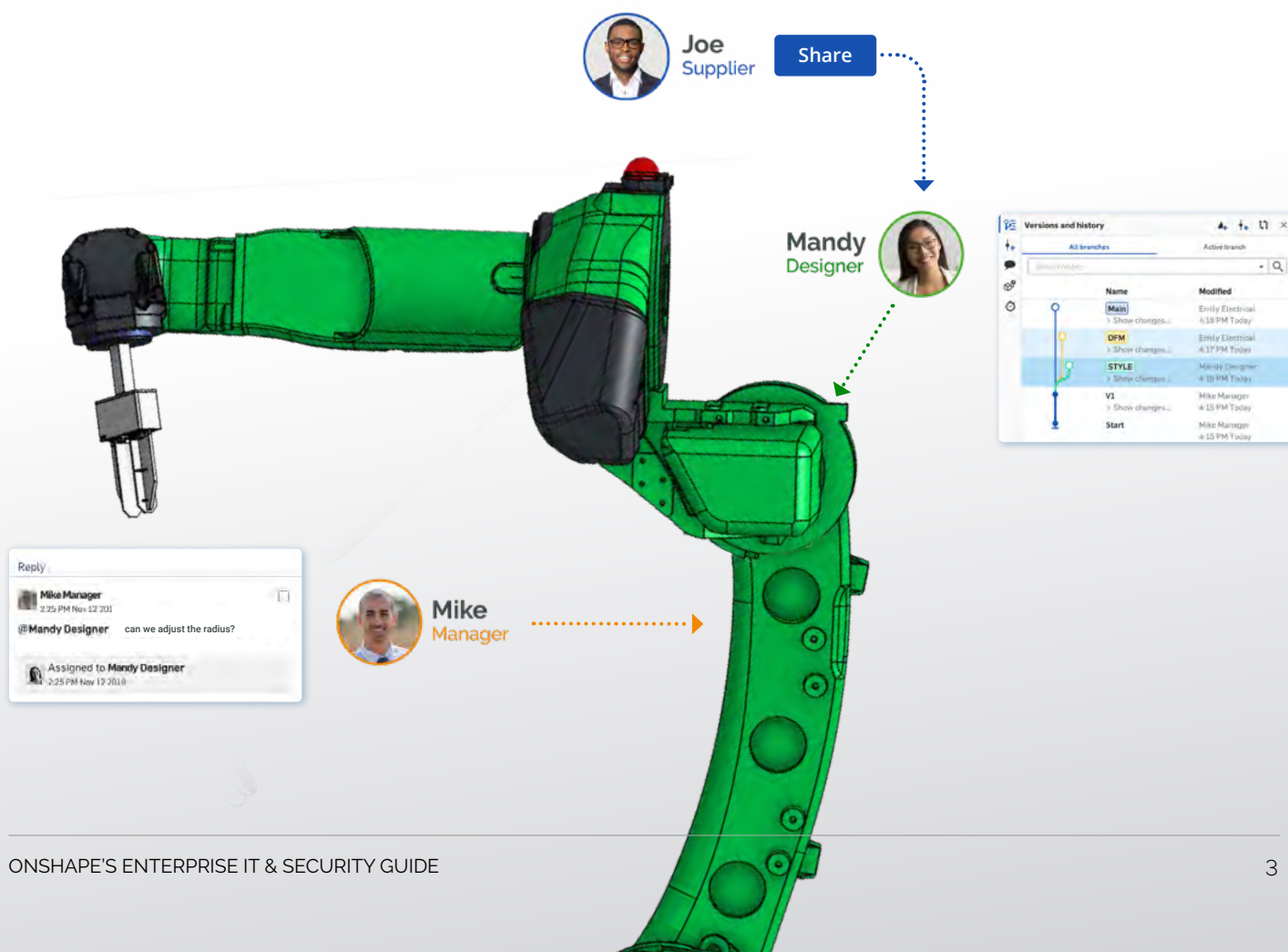
Introduction

Remote work, dispersed teams and the virtual workplace are all here to stay - along with the technology that supports them. It's worth noting that people have been using cloud technologies, such as Salesforce and Netflix, in their offices and homes for some time.

Customers turn to such cloud-native products for powerful, anytime convenience without the hassle of downloads, updates, and the frustration of software crashes taking place in either their offices or their living rooms.

Why should CAD be any different? With Onshape, it isn't. Onshape is enterprise ready today, delivering reliable, scalable, secure and configurable CAD & PDM in the cloud.

This guide provides important answers to the most common questions on the infrastructure and security of Onshape's cloud-native CAD & PDM platform. It enables engineers and IT professionals to understand what cloud-native product development can do for users and administrators, as well as the potential impact for the business. Read on for answers to common questions on security, privacy, deployment, compliance, analytics, reliability and more.



/ Why Now?

It's been said that the worst decisions are the ones you don't know that you're making. More data, more silos and more dispersed teams add up to more blind spots.

Enterprises need tools that can deliver new levels of transparency so teams can collaborate to develop innovative products faster. This requires a secure and robust CAD platform with built-in data management and analytics enabling teams to make informed decisions throughout the design process.

Desktop CAD and cloud-storage options are inefficient and negatively impact critical KPIs such as productivity and quality, hampering your ability to innovate and outpace your competition. Now is the right time to consider a change.

[LEARN MORE](#)

/ Why Cloud?

There isn't a metric cloud that won't improve. Your head should be in the clouds - whenever you're thinking of performance, scalability or a reduction in IT overhead. Companies are lowering costs and achieving less downtime with cloud-native design and manufacturing technology stacks. These uniquely recognize the importance of communication, collaboration, and coordination in bringing products to market quickly, today and in the future.

[LEARN MORE](#)

/ Why Onshape?

Onshape is the best choice for cloud-native product development with the production-grade design capabilities engineers need, the data management teams need as well as all the enterprise must-haves. With Onshape, businesses can configure and customize the platform, to align with their overall business processes while pioneering more effective ones.

[LEARN MORE](#)

99.9% UPTIME

Onshape is
reliable & trusted



Backup / Disaster Recovery Time



Time Upgrading Onshape Models
due to Software Updates



Scheduled Downtime



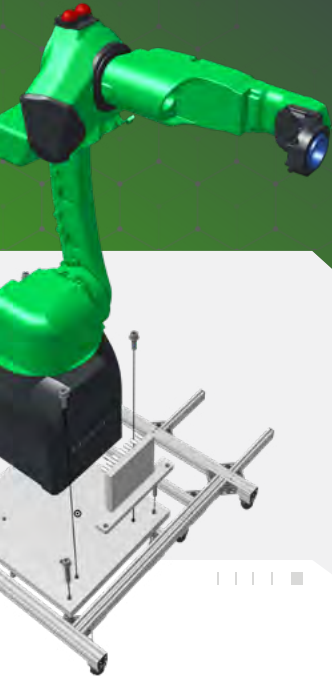
User Installs



Onshape Crashes



Corrupted Files
& Data Loss



Ready to start your cloud journey?

Enjoy the built-in security, cost savings and peace of mind that Onshape provides. Onshape can make production-ready CAD and PDM instantly available to your enterprise.

Better Collaboration

Eliminate the friction and wasted time that occur when your technology can't keep up with your team. Onshape can help open up your company's design process without sacrificing your productivity, security or time.

CAD for Agile Product Design

Tying together the benefits of cloud computing and Agile product development has notable advantages for hardware teams. Onshape's cloud-native architecture gives teams the tools to build better products faster with real-time, multi-user collaboration on even the most complex CAD designs. Specific cloud-enabled innovations in Onshape like sharing, branching and merging, and non-blocking release processes enables teams to work concurrently, to co-design. As an alternative to waterfall or phase-gate approaches, Onshape is enabling new and more efficient design and manufacturing processes.

Built-in PDM and File-less Architecture

Our file-less approach is now redefining the CAD industry and helping companies big and small lower costs and get to market faster. Onshape uses [Onshape Documents](#) which provide built-in versioning, release management, flexible sharing controls, scalable storage, and the ability to integrate with the existing systems. All with a Zero-IT footprint.

24/7 Reliability

Your team won't lose work. Onshape has a solid record of 99.9% uptime (trailing 12 months) without crashes or lost data See the current status and operational history of Onshape at <https://status.onshape.com>.

Anywhere, Anytime Access

When a colleague calls, you don't need to run to the office or to a specific machine. Instead, access Onshape through standard web browsers such as Chrome, Firefox, and Safari on desktops / laptops and through fully functional apps (not merely viewers) on iOS and Android mobile devices.

Simplified Administration

Save your company time and money. Onshape eliminates the need to manage files, servers, software service packs, or specialized workstations. Manage billing, licensing, users, teams, projects and all your company's design data from a single dashboard.



Single Sign On (SSO)

Onshape's Enterprise plan grants you a specific Onshape domain (URL) to access Onshape in a separate, secure, and managed environment (YourCompany.onshape.com). Onshape never stores users' passwords and supports SAML 2.0 for SSO integration in addition to Active Directory and Okta.

Role-based Access Controls

Grant permissions to the right people for the right resources. Role-based access controls (RBAC) and granular ad-hoc sharing controls in Onshape mean design teams can manage themselves and their data - doing it securely without increasing IT's administrative burden. Group individuals into teams and create projects to make Document sharing efficient.

Sharing

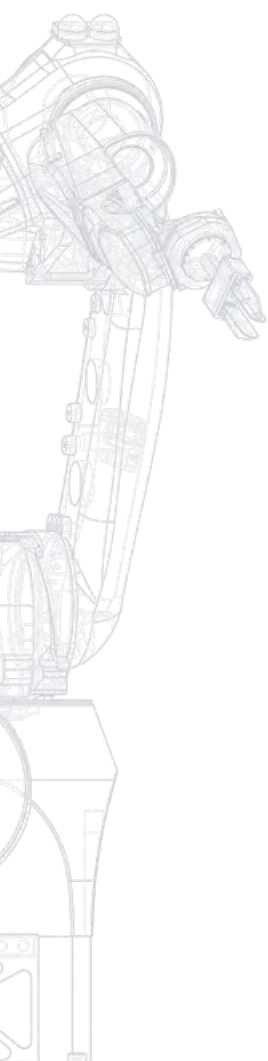
Onshape provides multiple tools you can use to work jointly within your enterprise and externally with partners. Share design data with individuals, lists of individuals, teams, and companies, or make a Document publicly available (or private again). Leverage in-app support and share Documents directly with Onshape for customer support, if needed. Authorized users can share "view-only" data outside their enterprise with shareable-links, although the enterprise administrator can restrict this permission.

Users

Users in Onshape Enterprise can be added or removed instantly, and can be managed from a central directory using SSO or bulk import.

Light Users

Take advantage of a 'light' license for non-CAD roles needing visibility into the design data such as customers, sales and marketing, purchasing and operations, suppliers, or manufacturing partners.



Enterprise Scalability

Onboard and manage a large number of CAD users efficiently and organize your business around your most critical intellectual property: your product design data.

Analytics

Understand usage of Onshape across your company - instantly. Onshape provides analytics and dashboards such as [Activity, Projects and Release](#) that enable teams to make better business decisions based on their design data. Analytics such as user email, platform invitation date, account activation, last login, role, license type, stored platform data, file exports, and more enable you to administer the software more easily and maximize utilization.

Analytics Privacy

By default, users are only able to see their own analytics data, but analytics administrators designated by the enterprise administrator can configure analytics reports and see all users' analytics. Onshape never provides analytics without the account owners' consent. All requests for analytics should be provided to your customer support representative.

Audit Trails

Audit reports summarize the events occurring on a specific [Onshape Document](#), project, or for a specific user in a specified period of time. This can include Document name, access location, export and date, and modeling time.

Comprehensive Edit History

Onshape automatically records a full history of all changes and milestones which lead to a successful end-product. The design history helps with compliance and audit requirements because it provides a traceable record of all changes made to the design.

Integrations

Streamline your product development and manufacturing processes by connecting Onshape to your essential systems such as PLM and ERP using [Onshape's open integration \(API\) framework](#). Onshape also has a cloud-native connection with [Arena PLM](#) for a complete product development and lifecycle management solution.

Security

You can't afford to be vulnerable. Onshape has comprehensive data and cybersecurity policies, third-party testing, and full-time staffing to ensure IP protection and total client satisfaction. For more information please contact us at security@onshape.com.

■ ■ ■ ■ ■

Amazon Web Services (AWS)

As a cloud provider, Onshape is built upon the Amazon Web Services (AWS) Elastic Compute Cloud (EC2) Infrastructure as a Service (IaaS) cloud platform. AWS EC2, a world-class computing infrastructure, includes globally distributed and physically secure data centers with redundant power, cooling, and networking. AWS has achieved multiple certifications globally, including ISO 9001, ISO 27001, SOC 2 Type II, and NIST 800-53.

Certifications

Deploy Onshape company-wide with confidence via SAML-based Single Sign On (SSO), SCIM provisioning, Two Factor Authentication (2FA), and granular access controls. Onshape provides a SOC-2 Type II report attesting to the security, confidentiality and availability of the service under NDA.

Customer Data Protection

Your data is under your control. With Onshape, CAD data never leaves the secure cloud environment unless permission to export has been explicitly granted by the data's owner. All data access is recorded in a permanent audit trail.

In Onshape, access is controlled by granular read, write, copy, comment, link, delete, and reshare permissions that provide users with tools to balance security and their need for agility and collaboration in their design process. Onshape employees are not able to view any customer data unless the data has been explicitly shared with Onshape Support.

Privacy

Onshape, a business unit of PTC Inc., considers the protection of your users and your companies information to be a paramount responsibility and complies with GDPR, CCPA and other data privacy laws. Please see our privacy policy (<https://www.onshape.com/en/privacy-center>) or contact privacy@onshape.com.



Security Testing & Third-Party Validation

Ongoing security testing continually validates Onshape against existing and newly discovered threats. Automated tools test Onshape's live servers for susceptibility to new and existing SSL/TLS vulnerabilities, and uses [HSTS](#) to ensure browsers interact with Onshape only over HTTPS. Regular third party audits of the details of our implementation, the certificates served, the certificate authorities used, and the ciphers Onshape supports are there to ensure your data is secured.

Communication Security

Onshape protects your users and your enterprise's intellectual property with strong authentication and comprehensive audit logs. Onshape requires HTTPS for all services, including our public website and our [community forum](#). Onshape's servers never run anything but Onshape software – eliminating the possibility of exploits due to web browser or email client activity.

Data Encryption

Data is encrypted at rest and in transit. All Onshape Documents are saved on encrypted storage with AES-256. All communication between our internal servers and the internal databases holding your Onshape Documents uses TLS v1.2. We prioritize the strongest cipher suites for communication between your client and our service and between our internal servers.

Data Safety

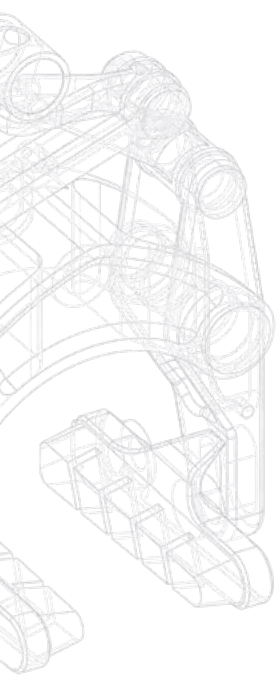
Onshape stores enterprise data in modern NoSQL databases on Amazon Web Services (AWS). Optionally, administrators can configure additional cloud storage options to help import and export data such as Microsoft OneDrive, Google Drive, and Dropbox.


Data Perpetuity

Onshape is committed to keeping your most sensitive data protected and portable. Even if your subscription ends, your data is still privately and securely stored and exportable.

Data Recovery

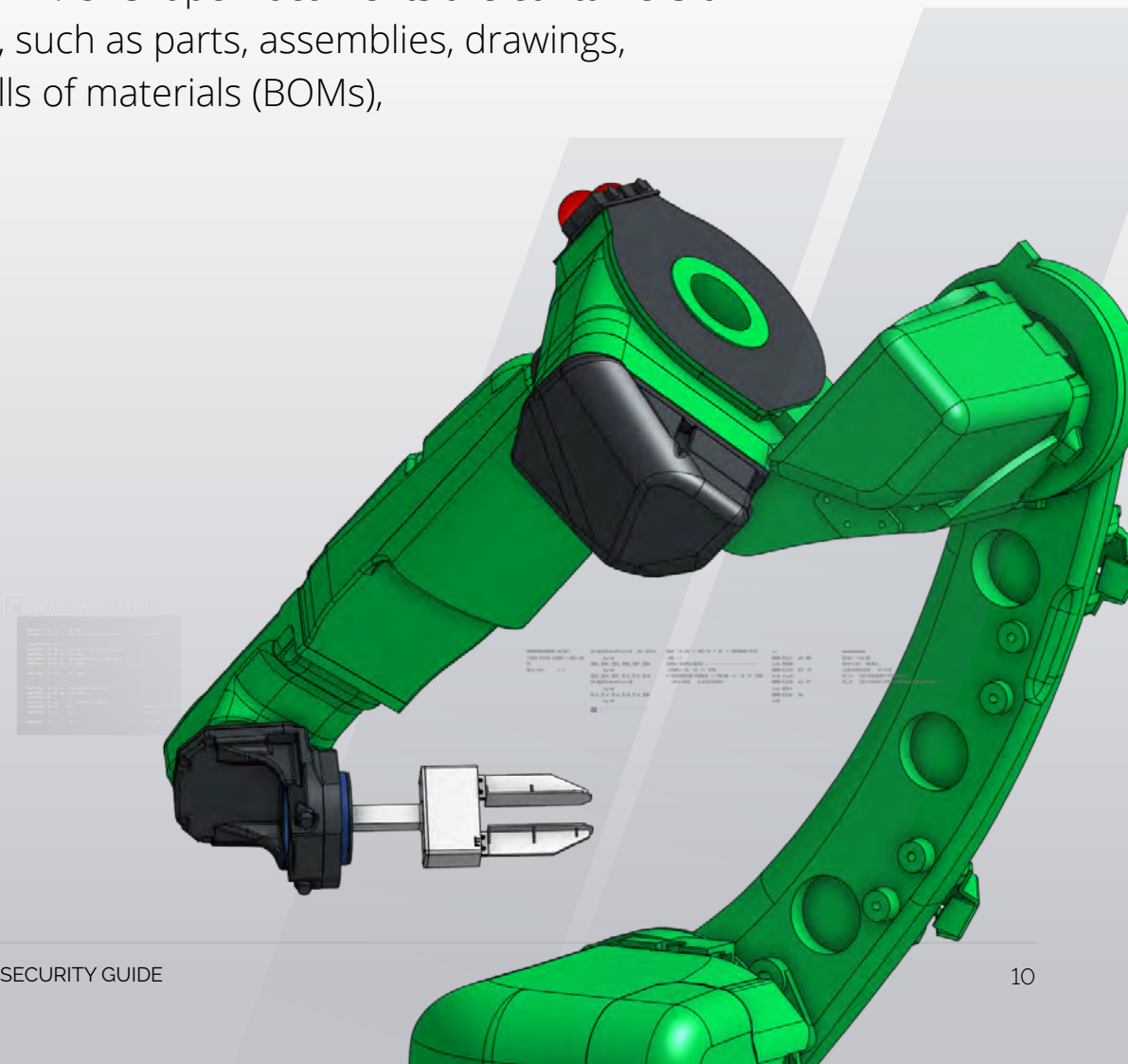
Backup and restore testing of all Onshape databases are both frequent and encrypted. Backups are kept for one year and items moved to Trash can be easily restored within 30 days. Data created by disabled user accounts remain intact inside the enterprise.



	Cloud-Native  onshape™	Desktop CAD with Cloud-Storage options
Software Application	Software runs on cloud servers (Saas).	Software runs on local hardware installation.
Data Storage	One database in the cloud.	Multiple copies of files stored in the cloud or on-premises servers.

Compare Onshape to Desktop CAD with Cloud-Storage Options

Onshape pioneered cloud-native CAD (no files or folders) with built-in PDM. Onshape Documents are containers of linked objects, such as parts, assemblies, drawings, renderings, bills of materials (BOMs), and more.



The Onshape Difference

	Cloud-Native Onshape	Desktop CAD with Cloud-Storage options
Hardware	Runs on a web browser on any device, anywhere. Specialized hardware is not required. Any device with a low-end graphics card that supports WebGL can support Onshape.	Costly hardware still needs to meet the requirements of CAD software, typically fast multi-core processor, higher end GPU and RAM.
Access	Licenses are associated with each use. Instantly add or remove users from a web-based admin console and maintain all company data.	Licenses are commonly associated with each machine (IP address) often causing duplication of licensing costs.
License Servers	CAD and PDM servers are not required.	License and PDM servers required, adding substantial hardware, software and administration costs.
Installs	Most recent version is always available to users without any downloads or installs.	All software and upgrades must be manually downloaded, installed.
Data	No file copies.	Files are copied to and from storage locations (PDM/PLM).
Security	Onshape invests in advanced cloud security measures beyond what most companies could do on their own.	Security risks of installed software and local file copies. IT is often running multiple versions behind and is unable to push patches/upgrades to users quickly.
24/7 Service	Stable, reliable, and performant. 24/7 availability and no lost time due to crashes. Leverages cloud-compute for parallelization and performance.	Common for desktop CAD to crash or for PDM servers to be unavailable due to IT or maintenance issues. Performance depends on local hardware.
Help	Help and support built into the product.	Difficult to communicate support issues.
IT Costs	Hosted by Onshape, reduced IT administration and costs. Scalable cloud storage included.	All IT costs are the responsibility of the customer, including storage and backups.



Onshape has one of the CAD industry's highest customer satisfaction scores and is used worldwide by over 3+ Million users.

If you have questions, or would like to discuss our approach to securing the information you entrust to us, feel free to contact us security@onshape.com

**Bring true agility - without
compromising security -
to your enterprise today.**

CONTACT SALES

