

Business white paper

Benefits of true cloud solutions

HP JetAdvantage On Demand suite of printing applications



Key topics

- Why are so many companies adopting Software as a Service (SaaS) solution hosting?
- What's the difference between true cloud hosting and traditional off-site hosting?
- How do true cloud solutions achieve high levels of security?
- What are multi-tenant solutions, three-tier security architecture, and zero-knowledge encryption?
- What is HP's SaaS portal (HP JetAdvantage On Demand)?
- Where can I find additional information about HP's true cloud solutions?



Informed companies are moving to Software as a Service (SaaS)

Business applications are rapidly migrating to cloud computing to take advantage of the latest technologies and platforms, while reducing total cost of ownership and enjoying ease of implementation.



General benefits of true cloud computing

- Easy installation
- Scalable to meet business demands
- Cloud designed redundancy
- Optimised 24/7 security monitoring operations
- High availability and reliable disaster recovery with cross-region automatic failover
- Always on latest version
- Transparent upgrades and maintenance with zero downtime
- Multi-tenant implementation
- Web-optimised communication
- Open platform for Application Service Providers (ASP)
- Community-hardened application with behind-the-scenes maintenance

True cloud vs. offsite hosting

Offsite software hosting, which has been available for years, is often claimed to be cloud computing. It is not. And the difference is important. At HP, we believe in delivering the right solution for the right environment. Achieving this means knowing not only what services will be provided, but also how they will be provided, and why it matters to you.

Integrated cloud design

Cloud platform providers go beyond just provisioning hardware. They build and integrate toolsets designed to optimise performance, sustainability, and security while minimising costs. True cloud solutions use these toolsets and thus benefit from the close integration between the platform and the application.

True cloud solutions are designed with the highest levels of security, including a three-tiered secure architecture using 128-bit Advanced Encryption Standard (AES.) Companies looking for cloud solutions today are near universal in embracing true cloud solutions as opposed to single-tenant, hosted offerings.

More efficient business model

Multi-tenant cloud solutions have an operational advantage in that a small operations team can support hundreds or even thousands of installations. Consequently, true cloud operations have a higher focus on maintaining operational stability and on building new features and services.

All customers benefit from new features as soon as they are put into production. No clients—no matter the size—need to wait for their sites to be scheduled for upgrades. The result is improved access and maximised uptime with minimal disruption. Issues that might arise are quickly visible to the operations team, enabling speedy resolution. Many customers may not even realise that an issue existed.

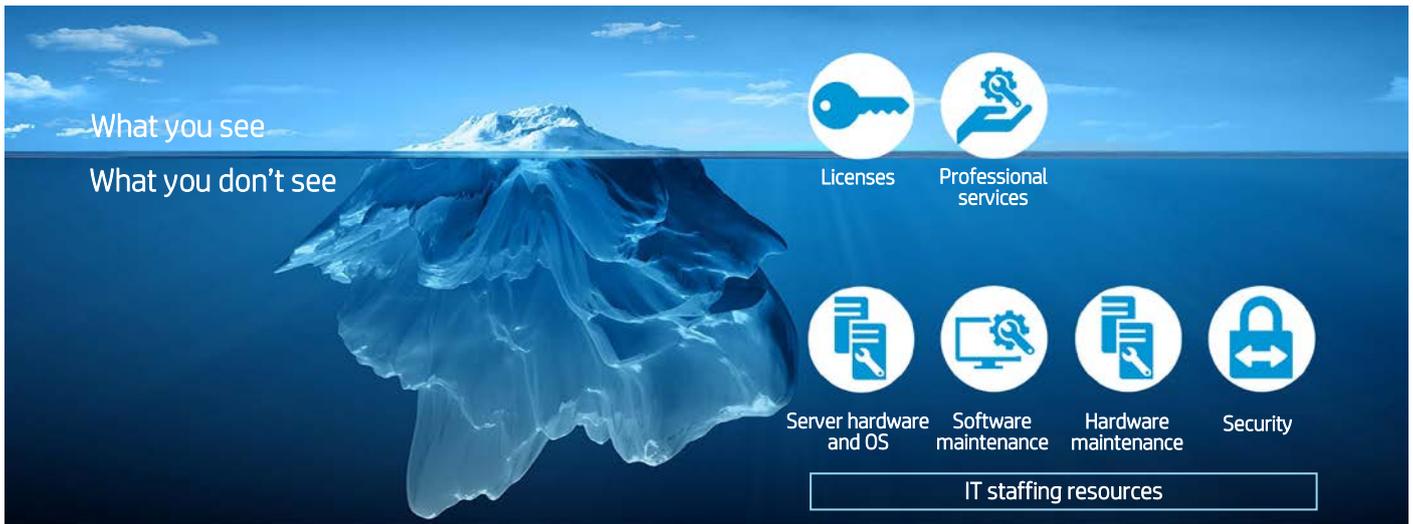
Easy, scalable, convenient

True cloud solutions are engineered to take advantage of the benefits of multi-tenant design, automatic system and component upgrades, cloud-secure communications, and built in multi-site backup, failover, and disaster recovery. What does this mean for our clients? It means that these solutions are easy—easy to install, easy to use, easy to scale, and easy to maintain.

It means that these solutions are scalable—a single printer solution can be installed as efficiently as hundreds. Pricing is on a pay-per-use model. Growing your environment will never require a change in design, architecture, or resource provisioning. When the system load is high, solutions automatically scale to meet demand. You receive the same quick response time—all the time.

It means these solutions are convenient—administrators can self-provision, grow, or shrink their solution instantly. All customers are always on the latest version of software—instantly and simultaneously. Teams of operations specialists manage upgrades, which happen with no printing downtime.

Figure 1. True cloud computing helps to eliminate the hidden costs associated with on-premise or hosted cloud computing



How secure is my data in a multi-tenant solution?

HP true cloud solutions keep your data safe with rigorous and industry-proven security practices including:

- Three-tier architecture to isolate data
- Secure firewalls and intrusion detection at each level
- 24/7 monitoring
- Data is encrypted in transit and while stored in the cloud, using industry-grade 128-bit Advanced Encryption Standard (AES)³
- Zero-knowledge encryption scheme (encryption keys not stored in cloud but on the client server only)

Built-in security

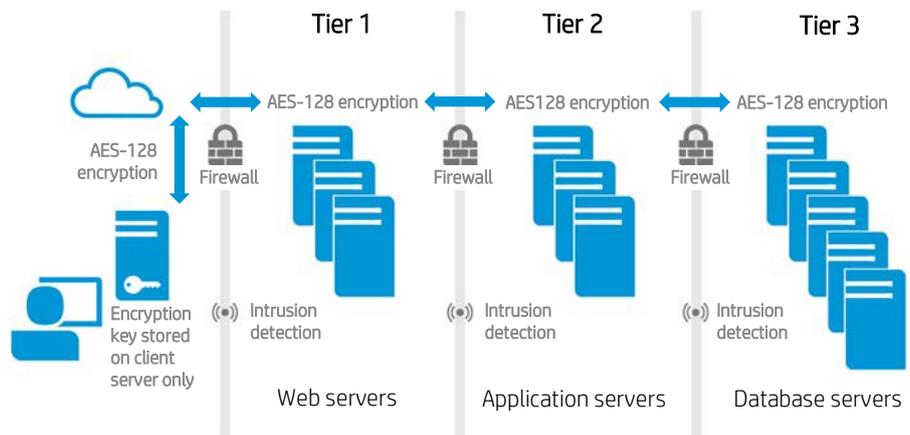
Are your valuables more protected in a home safe or in a bank vault? Banks invest in unique architecture and tools to protect the assets they hold. It is the same with the cloud.

On-premises solutions are designed to operate within secured environments. They rely on the assumption that the physical and network security layers are providing adequate protection. Get past the organisation’s firewall and many of these applications become exposed.

Most software security breaches occur at the application layer. Hackers leverage interface points to get beyond the application to the data beyond. Moving these on-premises solutions off premises and simply hosting them in a cloud environment does not remove that security risk.

True cloud solutions like HP JetAdvantage Insights and Secure Print are designed for security in the cloud. A three-tier secured architecture and a zero-knowledge encryption scheme puts your data out of the reach of those who try to access it through the application.

Figure 2. Three-tier security architecture isolates the data



HP’s cloud solutions leverage security-related design principles built through years of experience in developing and supporting web applications. You can count on secure communications between your site and the external cloud.

Most onsite or hosted software breaches go undetected, which multiplies the risk. Single, disparate applications—whether on-premises or hosted—can be breached, often without awareness for long periods of time. True cloud, multi-tenant systems are monitored 24/7 and identify, categorise, and neutralise threats faster.

HP JetAdvantage On Demand



One-stop solution management:

- **Choose** from a collection of business apps from HP and third-party vendors
- **Try** before you buy with an integrated free trial²
- **Deploy** apps to your print fleet—it's easy
- **Manage** users' access to provisioned apps
- **Secure** your environment with apps that are HP Security-Certified³ and compliant with data privacy best practices

Trusted, proven solutions

The HP JetAdvantage cloud solutions seamlessly support thousands of simultaneous customers. Customers can choose to take a hands-off approach. And most do. More than 95% of all system components are updated within 24 hours of a new software release, and more than 98% within 48 hours. Picture thousands of customers upgrading without worry—or effort.

HP JetAdvantage On Demand SaaS portal

HP is bringing together industry-leading applications and user management into one highly intuitive web-based SaaS portal. Discover, try, and buy business printing and imaging apps to enhance the capabilities of HP and multi-vendor devices. Deploy, administer licenses, and assign user access from a single, secure login. With solutions such as HP JetAdvantage Insights, access to your data is real-time, through a web browser. Simple dashboards provide up-to-the-minute information on your print environment.



“Outstanding Print Analytics Solution⁴”

Radically simple

A single, web-based console provides quick access to, and management of, all licensed apps. Choose from a collection of apps specifically designed to enhance the capabilities of both HP and multi-vendor imaging and printing devices. Streamline business processes while enhancing transparency, security, and productivity with HP Security-Certified³ apps from HP and third-party vendors.

Figure 3. Apps available on the HP JetAdvantage On Demand portal

 <p>Send print jobs to a secure cloud and release from any compatible HP device</p>	 <p>Get robust SaaS pull printing with a range of authentication options, compatible with any networked printer or MFP</p>	<p>Additional SaaS apps from HP and third parties will be added to the marketplace over time.</p>
 <p>Transform data into action to optimise your print environment</p>	 <p>Capture and process documents for increased productivity</p>	

Go to hp.com/go/jetadvantageondemand to discover apps and sign up for a trial.

Resources and additional links

HP JetAdvantage On Demand SaaS portal:
hp.com/go/JetAdvantageOnDemand

HP JetAdvantage Insights:
hp.com/go/JetAdvantageInsights

HP JetAdvantage Private Print and HP JetAdvantage Secure Print:
hp.com/go/JetAdvantagePullPrint

Learn more
hp.com

¹ Source: Verizon customer survey: survey of Verizon's enterprise-level cloud customers, October 2015.

² A free trial is available for most apps.

³ Compliant with data privacy best practices and data is protected through encryption in transit and while stored in the cloud, using 128-bit Advanced Encryption Standard (AES).

⁴ Pick Award from Buyers Laboratory LLC, Winter 2017.

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