

HPE Integrated Lights-Out portfolio



Your server management engine

Traditional server management and provisioning can create unnecessary burdens for many organizations. Information technology (IT) administrators in today's business environments need a more streamlined process to manage servers throughout the IT lifecycle, including tools to help them diagnose problems and procedures for efficiently resolving errors. The key capabilities of HPE Integrated Lights-Out (HPE iLO) are embedded in every HPE ProLiant Gen9 and Gen10 server, the solution's scalable licensing offerings, and mobile app features that support IT staff—anywhere, anytime.

Out of the box, HPE iLO simplifies server setup, provides access to server health information, enables server management at scale, improves server power and thermal control, as well as basic remote administration.

With the HPE iLO management, you can automate your common tasks during each step of the server lifecycle, from initial deployment to ongoing management and service alerting. This translates to faster time to deployment, higher server, and application availability through ongoing health monitoring, and significantly quicker time to resolution when issues arise.



Figure 1. HPE iLO management—Core lifecycle management functions built in for instant availability

Key features and benefits

The HPE iLO management portfolio includes:

Server security

HPE iLO 6 safeguards HPE servers with fuels industry-leading security features.¹ HPE iLO 6 and Gen11 hardware upgrades deliver server security through innovations that protect your HPE servers from attacks, detect potential intrusions, and allow users to recover their firmware securely.

Protect

Remove vulnerabilities that expose infrastructure firmware to malicious attacks with HPE exclusive silicon root of trust. HPE Secure Start uniquely ensures that only HPE signed firmware will boot by validating through the silicon root of trust from HPE, so that you can be confident that your booted firmware is safe. With HPE iLO 6 we have the ability to enforce use of cryptography and algorithms that confirm to Commercial National Security Algorithm (CNSA). HPE iLO 6 also introduces support for 2 factor authentication via Personal Identity Verification (PIV) cards/Common Access Cards (CAC).

Detect

Runtime Firmware Verification ensures that your essential firmware is checked at regular intervals to identify any potential intrusions that may occur post-boot.

Recover

Avoid lasting damage to your business by quickly restoring essential firmware to the factory settings or the last known authenticated safe setting in the unlikely event of a breach. Learn more at hpe.com/info/security.

HPE Agentless Management

HPE Agentless Management runs on HPE iLO, independent of the OS and the main CPU. It offers robust basic server monitoring without the complexity of OS-based agents. The base hardware monitoring and alerting capabilities are built into the system (running on the HPE iLO processor). They start working the moment a power cord and an Ethernet cable are connected to the server.

HPE Active Health System

The HPE Active Health System (AHS) is an essential component of the HPE iLO

management portfolio that provides continuous, proactive health monitoring of HPE servers. Now with the Active Health System Viewer (AHSV), customers with an active warranty or support agreement on Gen8, Gen9, or Gen10 servers have a web-based portal to easily read their AHS logs and speed problem resolution. Self-repair recommendations for a select set of errors help customers take repair actions without the need for HPE personnel intervention and return server environments to optimum performance quicker. Learn more about AHS and AHSV at hpe.com/servers/ahs.

At the server management

Exclusively available on Gen10 servers, the new HPE iLO service port is a USB port for integrated remote console and AHS downloads that gives users direct, front of the server access to HPE iLO. This new feature also allows users to give HPE iLO access without the need to connect and authenticate on your network, making it simpler to access the information needed quickly.

HPE Remote Support

HPE remote support tools monitor your servers 24x7 and proactively alert you to potential problems. The tools work in conjunction with HPE iLO for much easier configuration and setup of remote support for HPE ProLiant Gen8, Gen9, Gen10, Gen10 plus and Gen11 servers. Tools such as HPE OneView and HPE Insight Remote Support offer automated event detection, support case creation, notification, and accurate diagnostics, so you can spend less time solving problems and focus more on IT value-add to your business. For more information, visit: hpe.com/services/getconnected.

HPE Intelligent Provisioning

HPE Intelligent Provisioning is a server deployment and maintenance capability embedded across HPE ProLiant Gen8, Gen9, and Gen10 servers. With HPE Intelligent Provisioning, you can deploy servers faster to overcome the complexity of server maintenance and deployment.

New in Gen10, HPE Intelligent Provisioning is now Always On. HPE Intelligent Provisioning is accessible from the HPE iLO browser user interface anytime without having to reboot your server. Learn more at hpe.com/servers/intelligentprovisioning.

¹ hpe.com/psnow/doc/a00126212enw?from=app§ion=search&isFutureVersion=true





Remote access

Remote management capabilities allow users to effortlessly manage servers from the convenience of a laptop or mobile device. Configurable alerts also enable proactive task status and error messages via the UI, email, and SMS so users can stay on top of server health with ease and before errors result in downtime.

Licensed product offerings

HPE iLO Advanced License

HPE iLO Advanced builds on the industry-leading security features of HPE servers² by providing premium security capabilities that protect your HPE servers from attacks, detect intrusions and allow you to securely recover essential firmware.

Exclusively available on HPE ProLiant Gen10 servers, the HPE iLO Advanced license offers smart remote functionality without compromise, for enterprise environments. The license includes the full-integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality. With this license, your IT managers can perform system administration tasks without physically visiting their servers and management at scale with HPE iLO Federation.

Compute Ops Management

HPE GreenLake for Compute Ops Management is HPE's new cloud-based management experience in a subscription-based (aaS) model. Compute Ops Management is available in a two-tier system, Standard and Enhanced. Purchase a subscription to Compute Ops Management and transition to cloud-based management of the server.

HPE GreenLake for Compute Ops Management simplifies and unifies operations across the server lifecycle, for the whole environment, no matter where your compute infrastructure lives. It provides a consistent, secure cloud experience that scales elastically and unifies compute management.

Unify compute management

Streamline your compute management operations using a seamless as-a-service

single console experience from edge to cloud with self-service and real-time access to servers.

Simplify and automate

Simplify and bring agility to your compute lifecycle management to lower your Total Cost of Ownership (TCO).

Secure cloud operations

Securely control your distributed compute lifecycle tasks using a cloud-native architecture to manage and monitor your servers seamlessly.

- Register at Compute Ops Management for a free 90-day evaluation trial for up to 10 devices on the Enhanced tier. This gives our customers the opportunity to “try before you buy.”
- Evaluation license key and getting started guide will be issued to the customer via email.
- Customers can use in-app support including FAQs, videos, community help, docs, and feedback requests.
- During the 90-day trial customers can opt to be converted to a paid subscription.
- Customers who wish to purchase a Compute Ops Management subscription directly should contact their sales representative.
- For more information, see hpe.com/solutions/compute-ops-management

HPE iLO and HPE OneView—Better together

HPE OneView is integrated IT infrastructure management software that automated IT operations and simplifies infrastructure lifecycle management across compute, storage, and networking. HPE OneView uses the servers' HPE iLO to collect valuable information like inventory. When integrated with HPE iLO Advanced, HPE OneView also provides utilization data and Remote Console access for HPE ProLiant rack servers. For more information, visit: hpe.com/info/oneview.

HPE iLO feature comparison tables

HPE iLO licenses can be purchased stand-alone or with your HPE ProLiant server order. When ordering a license, please check the HPE iLO comparison tables listed below for features specific to the HPE iLO version (HPE iLO 6 or HPE iLO 4) within your HPE ProLiant server.

² hpe.com/psnow/doc/a00126212enw?from=app§ion=search&isFutureVersion=true



HPE ProLiant Gen11 servers with HPE iLO 6

| Feature | HPE iLO Standard | HPE iLO Advanced |
|---|---|----------------------------------|
| Platform support | All Gen11 servers with HPE iLO 6 | All Gen11 servers with HPE iLO 6 |
| Embedded health system | ✓ | ✓ |
| Virtual power buttons | ✓ | ✓ |
| IPMI over LAN/DCMI | ✓ | ✓ |
| Web-based GUI | ✓ | ✓ |
| SSH command line interface | ✓ | ✓ |
| RIBCL | ✓ | ✓ |
| Virtual serial port (VSP) | ✓ | ✓ |
| IPv6 | ✓ | ✓ |
| Active Health System | ✓ | ✓ |
| Embedded remote support | ✓ | ✓ |
| Agentless Management | ✓ | ✓ |
| Integrated Remote Console (IRC/Virtual KVM, support text, and graphics) | Pre-OS only all servers except WS. Standard offering on WS servers. | ✓ |
| Pre-boot health summary ³ | ✓ | ✓ |
| HPE iLO Reboot Switch ³ | ✓ | ✓ |
| HPE RESTful API ⁴ | ✓ | ✓ |
| HPE iLO Federation Discovery ⁴ | ✓ | ✓ |
| HPE iLO Federation Management ⁴ | | ✓ |
| Global Team Collaboration via Integrated Remote Console | | ✓ |
| Integrated Remote Console Record and Playback | | ✓ |
| Virtual Media via Integrated Remote Console | Standard offering on WS servers only | ✓ |
| Simple Certificate Enrollment Protocol (SCEP) | | ✓ |
| Global Component Integrity ⁵ | ✓ | ✓ |

³ Available only on HPE Gen9 servers and beyond.

⁴ Available with HPE iLO 4 1.40 and beyond.

⁵ Global Component Integrity option allows iLO to authenticate the components in the server using SPDM. Available with HPE iLO 6 1.10 and beyond.



HPE ProLiant Gen11 servers with HPE iLO 6 (continued)

| Feature | HPE iLO Standard | HPE iLO Advanced |
|--|------------------|------------------|
| Scripted Virtual Media | | ✓ |
| Directory Service Authentication | | ✓ |
| HPE iLO Security Dashboard | ✓ | ✓ |
| Silicon Root of Trust | ✓ | ✓ |
| Server Configuration Lock | | ✓ |
| 2 Factor Authentication (Kerberos, Smart Card—PIV/Common Access Card) | | ✓ |
| Email-based alerting | | ✓ |
| Remote Syslog | | ✓ |
| Advanced Power Management (Power history graphs, Dynamic Power Capping) | | ✓ |
| Virtual Serial Port Record and Playback | | ✓ |
| Discovery Services | | ✓ |
| Commercial National Security Algorithm (CNSA Mode) | | ✓ |
| Runtime Firmware Verification | | ✓ |
| Automatic Secure Recovery | | ✓ |
| Secure Erase of NAND/user data | | ✓ |
| One-Button Secure Erase | | ✓ |
| Workload Matching Profiles | ✓ | ✓ |
| HTML5 Remote Console | ✓ Pre-OS only | ✓ |
| Workload Performance Advisor | | ✓ |
| Server System Restore | | ✓ |
| Server Identity (DevID) based on IEEE 802.1AR | ✓ | ✓ |



HPE ProLiant Gen10 and Gen10 Plus servers with HPE iLO 5

| Feature | HPE iLO Standard | HPE iLO Advanced |
|--|---|---|
| Platform support | All Gen10 and Gen10 Plus servers with HPE iLO 5 | All Gen10 and Gen10 Plus servers with HPE iLO 5 |
| Embedded health system | ✓ | ✓ |
| Virtual power buttons | ✓ | ✓ |
| IPMI over LAN/DCMI | ✓ | ✓ |
| Web-based GUI | ✓ | ✓ |
| SSH command line interface | ✓ | ✓ |
| RIBCL | ✓ | ✓ |
| Virtual serial port (VSP) | ✓ | ✓ |
| IPv6 | ✓ | ✓ |
| Active Health System | ✓ | ✓ |
| Embedded remote support | ✓ | ✓ |
| Agentless Management | ✓ | ✓ |
| Integrated Remote Console (IRC/Virtual KVM, support text, and graphics) | Pre-OS only all servers except WS. Standard offering on WS servers. | ✓ |
| Pre-boot health summary⁶ | ✓ | ✓ |
| HPE iLO Reboot Switch⁶ | ✓ | ✓ |
| HPE RESTful API⁷ | ✓ | ✓ |
| HPE iLO Federation Discovery⁷ | ✓ | ✓ |
| HPE iLO Federation Management⁷ | | ✓ |
| Global Team Collaboration via Integrated Remote Console | | ✓ |
| Integrated Remote Console Record and Playback | | ✓ |
| Virtual Media via Integrated Remote Console | Standard offering on WS servers only | ✓ |
| Simple Certificate Enrollment Protocol (SCEP) | | ✓ |

⁶ Available only on HPE Gen9 servers and beyond.

⁷ Available with HPE iLO 4 1.40 and beyond.



HPE ProLiant Gen10 and Gen10 Plus servers with HPE iLO 5 (continued)

| Feature | HPE iLO Standard | HPE iLO Advanced |
|--|------------------|------------------|
| Scripted Virtual Media | | ✓ |
| Directory Service Authentication | | ✓ |
| HPE iLO Security Dashboard | ✓ | ✓ |
| Silicon Root of Trust | ✓ | ✓ |
| Server Configuration Lock | | ✓ |
| 2 Factor Authentication (Kerberos, Smart Card—PIV/Common Access Card) | | ✓ |
| Email-based alerting | | ✓ |
| Remote Syslog | | ✓ |
| Advanced Power Management (Power history graphs, Dynamic Power Capping) | | ✓ |
| Virtual Serial Port Record and Playback | | ✓ |
| Discovery Services | | ✓ |
| Commercial National Security Algorithm (CNSA Mode) | | ✓ |
| Runtime Firmware Verification | | ✓ |
| Automatic Secure Recovery | | ✓ |
| Secure Erase of NAND/user data | | ✓ |
| One-Button Secure Erase | | ✓ |
| Workload Matching Profiles | ✓ | ✓ |
| HTML5 Remote Console | ✓ Pre-OS only | ✓ |
| Workload Performance Advisor | | ✓ |
| Server System Restore | | ✓ |
| Server Identity (DevID) based on IEEE 802.1AR | ✓ | ✓ |



HPE Financial Services: Creating investment capacity to accelerate digital transformation

HPE Financial Services helps organizations create the investment capacity they need for digital transformation, in an innovative and sustainable way. HPEFS partners with customers to develop a playbook for their entire IT asset portfolio (from edge to cloud to end user), one that is unique to their aspirations and size. Our financial and asset management solutions are anchored by best-in-class tech upcycling services. For more information, visit: hpe.com/us/en/services/financial-services.html.

HPE Pointnext Services

To get the most out of HPE iLO 6 and HPE iLO 4, you need a service partner who thoroughly understands your IT environment. HPE Pointnext Services provide a wide range of support services to help you get more from your technology.

- One- or three-year 24x7 HPE Software Technical Support is bundled with HPE iLO licenses. With this service, you gain rapid access to HPE support center representatives to assist you with HPE iLO configuration and issue resolution. This support can be extended to four or five years to match your HPE ProLiant server's support.

Resources

[HPE iLO Licensing Guide](#)

[Selecting the right HPE iLO license](#)

[HPE iLO Features and Supported Servers](#)

[HPE iLO Licensing FAQ](#)

[QuickSpecs](#)

Learn more at
hpe.com/info/ilo

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