hp

COMMERCIAL SYSTEMS

TRANSITIONS

CUSTOMER PATHS TO THE NEW
HYBRID WORK EXPERIENCES
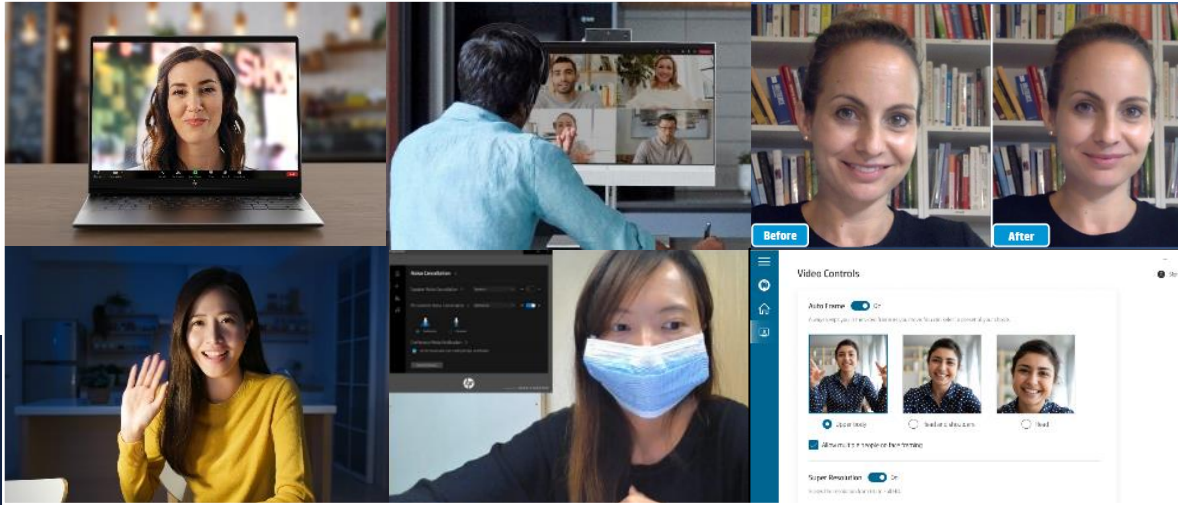
FEB 2023

THE DESKTOP EXPERIENCE FOR HYBRID WORK

INNOVATIONS THAT POWER

# A BETTER WAY TO BE SEEN, BE HEARD, AND TO SHARE IDEAS

NOW ON DESKTOP PCS

Look and sound your best in all spaces with

- Upgraded 5MP camera
- Integrated Backlight and Lowlight adjustment software[2,5]
- Beautification filter

- Bi-directional Ai-based Noise reduction[1,5]
- AI-based HP Clear Voice,
- MyHP app[4]

Move naturally while I communicate with

- HP Auto Frame[1,5,6]
- HP Dynamic Voice Leveling[1,5,6]
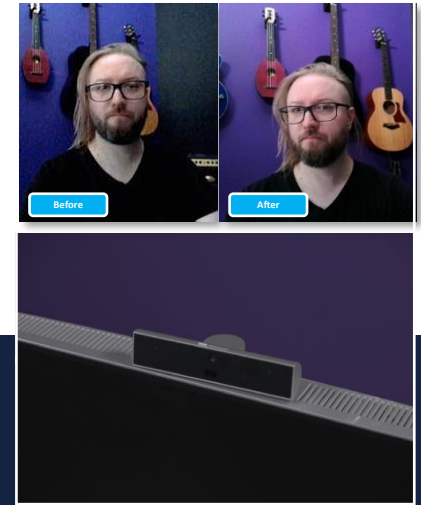
Enhanced experiences

- 16MP Binning Camera[8]

HP Presence

HP

ALL YOU NEED FOR HYBRID WORKS

BETTER COLLABORATION EXPERIENCES

Virtual meetings have exploded with hybrid work

Backlight adjustment

BEFORE
AFTER

Not everyone has optimal lighting or control over interruptions

Lowlight adjustment

BEFORE
AFTER

Superb resolution

HP Auto Frame

Dynamic Voice Leveling

Collaborate in any lighting situation and present a clear image

EliteOne (800) and ProOne (400)

Backlight Adjustment[2,5]

Lowlight Adjustment[2,5]

Look and sound clear and focus without worrying about distracting others (or being distracted)

EliteOne 800 Series

16MP Binning[8] 180 Degree Swivel Webcam

EliteOne (800) and ProOne (400)

AI-based noise reduction 2.0[1,5]

Move around naturally while you collaborate and stay engaged

EliteOne (800) and ProOne (400)

HP Dynamic Audio[7]
HP Sound Calibration 2.0[13]
HP Auto Frame[1,5]

EliteOne 800 Series

HP Dynamic Voice Leveling[1,5,6]

hp

STAY CHARGED WITH THE CHARGER YOU CAN'T LOSE

Only available on the EliteOne 800 G9

ALWAYS CHARGED = ALWAYS READY

No need to search for your charging cable

CLUTTER-FREE DESK = CLUTTER-FREE MIND

You not only save space on your desk you can also eliminate the need for having your charging cables on your desk

CABLE FREE = CLUTTER FREE

With built-in cable management and an optional wireless charging Qi stand [9,10,27]

Set. Charge. Go.

HP RUN QUIET DESIGN
WORK HARD WITHOUT SOUNDING LIKE IT

These HP desktops were designed with finely tuned
fans to keep systems cool and running quietly.

✓ No throttling ✓ Full performance ✓ System Reliability

Pro 400 Series G9 Desktops

Elite 800 Series G9 Desktops

COMMERCIAL ALL-IN-ONE DESKTOP PC
KEY INNOVATIONS

✔ = New in 2022

	EliteOne 840 G9 23.8"	EliteOne 870 G9 27"	ProOne 440 G9 23.8"
HARDWARE			
Camera Resolution (5MP) – (Optional IR)	✔	✔	✔
Camera Resolution (16MP) - (includes IR)[8]	✔	✔	No
Optional Color Light Sensor	✔	✔	✔
Optional Time of Flight Sensor (enables Auto Wake and Lock)	✔	✔	✔
Camera Interface	Swivel (USB)	Swivel (USB)	Pull-Up (USB)
Privacy Shutter	✔	✔	✔
Run Quiet Design	✔	✔	✔
Extended Range Wireless LAN[14]	✔	✔	✔
HP Eye Ease[15]	✔	✔	✔
Wireless Charging Qi	✔	✔	No
Monitor Mode[30]	✔	✔	✔
SOFTWARE			
HP AI Noise Reduction 2.0 (HP Presence Enhancement)[1,5]	✔	✔	✔
Backlight Adjustment (HP Presence Enhancement)[1,5]	✔	✔	✔
Lowlight Adjustment (HP Presence Enhancement)[1,5]	✔	✔	✔
Auto Frame (HP Presence Enhancement)[1,5]	✔	✔	✔
Dynamic Voice Leveling[1,5,6]	✔	✔	No
myHP Video Controls GUI	✔	✔	✔
HP Sound Calibration 2.0[13]	✔	✔	✔
HP Immersive Audio	✔	✔	✔
Modern Standby	✔	✔	✔
HP QuickDrop[16]	✔	✔	✔

HP

HP COMMERCIAL DESKTOP
PORTFOLIO OVERVIEW

Pro 200 Series G9 Desktops (intel)	Pro 400 Series G9 Desktops (intel)	Pro 405 Series G8 Desktops (AMD)	Elite 600 Series G9 Desktops (intel)	Elite 800 Series G9 Desktops (intel)	Elite 805 Series G8 Desktops (AMD)
Best value commercial desktop for **security, reliability and manageability**	**Everyday productivity and expandability** for your growing business	**Everyday productivity and expandability** for your growing business	Best value **Intel performance** and configurability	Our most **innovative designs** and **powerful experiences**	**Powerhouse performance** and **enterprise-grade** quality and reliability
Mini, Small Form Factor (SFF), Tower, All-in-One	Mini, Small Form Factor (SFF), Tower, All-in-One	Mini, Small Form Factor (SFF)	Mini, Small Form Factor (SFF), Tower	Mini, Small Form Factor (SFF), Tower, All-in-One	Mini, Small Form Factor (SFF)
• Good Intel® performance and configurability • Security, reliability, manageability	• Good Intel® performance and configurability • Security, reliability, manageability	• Good AMD® performance and configurability • Security, reliability, manageability	• Good Intel® performance and configurability • Security, reliability, manageability	• Superb Intel® performance • Most configurable • VR graphics[17] • Security, reliability, manageability	• Superb AMD® performance • Highly configurable • VR graphics[17] • Security, reliability, manageability

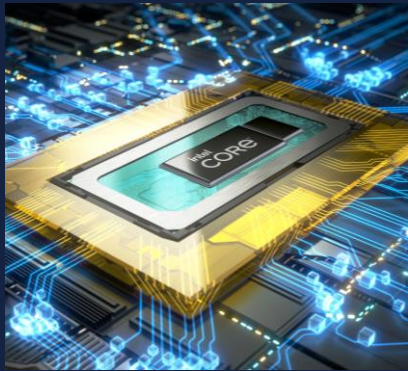MARKET SPECTRUM

Small business ⟷ Managed IT

KEY TECHNOLOGY HIGHLIGHT

WORK FROM ANYWHERE WITH INTEL®

HP and Intel® equipping businesses of all sizes with the hardware-based computing platform needed to succeed in a rapidly changing digital world.

Pro 400 Series G9 Desktops   Elite 800 Series G9 Desktops

12th Generation Intel® Core™ Processors – Architected for A Better End User Experience

Not all compute jobs have same performance expectation. The new core architecture with Intel® Thread Director prioritizes and manages distribution of workloads, optimizing performance per watt. With performance-cores for heavy applications and efficient-cores for multitasking, users are more productive based on how PCs are actually used. (LEARN MORE)

Select HP desktop products have intel technology for:

- Enhanced chipset
- 10nm architecture
- DDR5 support

Graphical support:
- Additional native graphic ports

Next gen Wi-Fi:
- Wi-Fi 6E[3]

+

Intel® Unique Feature:
- vPro® Enterprise and vPro® Essential[12]
- Intel® Dynamic Tuning Technology
- Intel® Thread Director

	800 TWR/SFF	600/400 TWR/SFF	200 TWR/SFF	800 AiO	400 AiO	200 AiO	800/600 DM	400 DM	260 DM
65W DTT	√								
65W	√	√	√	√	√		√		
35W					√		√	√	
15W (U)						√			√

S-Series (35W/65W) powers up to 16 cores and supports Intel Dynamic Tuning Technology (DTT) on 65W TWR form factor to allow for automatic and dynamic allocation of power between an Intel processor and an Intel Discrete Graphics Card to optimize performance and improve battery life

U-Series (15W) powers up to 10 cores in the sleek, space-saving 200 series Mini and All-in-One form factors that enable maximum productivity with a minimal footprint

ADL vPRO[12] OVERVIEW
NEW SOLUTIONS DESIGNED FOR SMB

Growing SMB accounts and modern endpoints bring expanding opportunities to support customer modern manageability with **vPro® Essentials solution**, optimized for remote workers – now available on **400s/600s** DT ADL platforms

Customer Segments	CML/RKL	ADL
Managed Enterprise Accounts	vPro® Enterprise	vPro® Enterprise
Un-managed SMB Accounts Cloud-optimized modern endpoints		vPro® Essentials
Generic Business Customers	Non-vPro®	Non-vPro®

Platforms	800s	600s	400s
vPro® Enterprise*	Default	Option	Option
vPro® Essentials*	–	Option	Option**
NON-vPro®	–	Default	Default

*For vPro Enterprise/vPro essential: Garfield Peak 2 (Intel WLAN card) must be selected if WLAN is configured
**vPro Essentials is available in select markets for 400 series

vPRO® ENTERPRISE VS. vPRO® ESSENTIALS

	MANAGEABILITY	SECURITY	STABILITY
vPro® ENTERPRISE	**Intel® Active Management Technology (AMT)[26]** Provides full remote management and control capabilities • Remote Configuration • Out-of-band management • Full remote erase and recovery • Full remote KVM (keyboard, video, mouse)	**Intel® Hardware Shield** HP Sure Start[22] Provides Enhanced Security • Intel® Hardware shield silicon components are leveraged to offer and enhance HP Sure Start Runtime Intrusion Detection • HP Sure Start builds on Intel's security tools with additional capabilities	**Intel® Stable IT Platform Program (SIPP)** No hardware changes for at least 15 months or until the next generational release
vPro® ESSENTIALS*[12]	**Intel® Standard Manageability** Enables remote configuration and the ability to remotely access and manage devices that are crashed or powered down • Remote configuration • Out-of-band management	**Intel® Hardware Shield** HP Sure Start Provides Enhanced Security • Intel® Hardware shield silicon components are leveraged to offer and enhance HP Sure Start Runtime Intrusion Detection • HP Sure Start builds on Intel's security tools with additional capabilities • With HP Sure Start customers can get the same level of security protection with vPro® Enterprise or Essentials[12]	**SIPP not available**

WHY TRANSITION TO WINDOWS 11
THE BEST HYBRID EXPERIENCES ARE ON A NEW PC

1 **NEW PC HARDWARE BEST SHOWCASES THE BENEFITS OF WIN11**

- More new PCs have touch and pen options to use with the new UI
- Docking is better on a new PC (USB4)
- New PCs have higher resolution panels

2 **NEW PCS HAVE THE TECHNOLOGY NEEDED FOR SUCCESSFUL HYBRID WORK**

- HP Presence[1]: Users value better collaboration features such as 5MP camera, enhanced mics
- Better connectivity with Wi-Fi 6E[3]
- Best performance: with latest CPUs with DDR5 on premium platforms

3 **WIN 11 + ADL CAMPAIGN SHOULD BE FOCUSED ON DRIVING HW REFRESH**

- Best end user experiences
- Best ITDM experiences
- Best security

hp

NEXT-GEN MEMORY
THAT FUELS SPEED & EFFICIENCY

INDUSTRY-WIDE TRANSITION TO DDR5

OPPORTUNITY
– Leverage DDR5 memory where performance / Energy savings is important based on use cases & pricing flexibility

DDR5 OFFERS:
– Lower power consumption

– Faster performance

– Reliability and resiliency improvement

2022 platforms offer a broad range of flexible memory configurations:

– **Single or Dual channel**[19] **options** (upgradeability & performance)

– **DDR4** for more competitive pricing (400 series)

– **DDR5** for latest technology and maximum performance (800/600)

NEXT-GEN GRAPHICS

THAT EVOLVES PC EXPERIENCE

OPPORTUNITY

- Offer RTX graphics where performance matters based on use cases & pricing flexibility

RTX GRAPHICS OFFERS:

- Studio level creation experience
- Next-gen performance based on Deep Learning and Ray tracing
- NVIDIA Broadcast, AI-powered collaboration tool

2022 platforms offer a broad range of flexible GFX configurations:

- High-end Graphics for creation & VR[17]

- Entry & Mid-tier Graphics for light creation & display extension

- Professional grade GFX for max reliability

hp

2022 PRODUCT CHANGES AND ROADMAP

2022 PORTFOLIO
STEP UP PATH

HP 200 G9 Series

Reliable entry-level desktops
for essential computing

- Latest processor technology
- Essential business features

PRO 400 G9 Series

NEW AiO ID

+ Configurable desktops and all-in-ones
for your growing business

- Security and manageability for growing business (+HP Sure Start[22])
- Manageability through Intel vPro®[12] options
- Higher level of MIL-STD durability[23]

ELITE 600 G9 Series

+ Essential enterprise features;
ready for versatile workspaces

- Enterprise Essentials
- Better expandability
- Global series

ELITE 800 G9 Series

NEW AiO ID

+ Innovative designs and powerful
experiences for hybrid work

- Enhanced collaboration features (AiO)
- Run Quiet Design 2.0
- Modern Stand-by
- HP Auto Lock and Awake[24] (AiO)
- Most compute power (TWR)

EXPERIENCE UPGRADES

HARDWARE UPGRADES

AiO	23.8" / 21.5" 5MP Camera Intel®[18] / AMD®[25]	23.8" 5MP Camera Optional GfX	– –	27" / 23.8" HP Presence[1] 5MP, 16MP Camera[8] Optional GfX
Mini	1x PCIe Gen4 15W Processor	1x PCIe Gen4 35W Processor	2x PCIe Gen4 65W/35W Processor	2x PCIe Gen4 65W/35W Processor Optional nVidia RTX 3050 Ti
Tower	3 Bay / 3 Slot 2x DDR4 Intel® / AMD®	3 Bay / 4 Slot 2x DDR4 Up to 400W PSU	4 Bay / 4 Slot 4x DDR5 Up to 550W PSU	4 Bay / 4 Slot 4x DDR5 Up to 550W PSU
SFF	2 Bay / 2 Slot 2x DDR4	2 Bay / 2 Slot 2x DDR4	4 Bay / 4 Slot 2x DDR5	4 Bay / 4 Slot 2x DDR5
All FF		Optional vPro® / vPro® Essentials[12]	Optional vPro® / vPro® Essentials[12]	vPro® Standard[12]

P-Series

CY22Q3			CY22Q4			CY23Q1			CY23Q2			CY23Q3			CY23Q4			CY24Q1			CY24Q2			CY24Q3
FY22 Q4			FY23 Q1			FY23 Q2			FY23 Q3			FY23 Q4			FY24 Q1			FY24 Q2				FY24 Q3		
Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul

- HP P34hc G4 34" Curve 65W USB-C PD 🍃 🔋 🌐
- HP P32u G5 31.5 QHD 65W USB-C PD 🍃 🔋 🌐
- HP P27q G4 27" QHD ✖
- HP P27h G4 27" 🍃
- HP P27h G5 27, FHD 🍃 🌐
- HP P27v G4 27" 🍃
- HP P27 G5 27, FHD 🍃 🌐
- HP P24q G4 23.8" QHD ✖
- HP P24h G4 23.8" 🍃
- HP P24h G5 23.8, FHD 🍃 🌐
- HP P24 G4 23.8" 🍃
- HP P24 G5 23.8, FHD 🍃 🌐
- HP P24v G4 23.8" 🍃
- HP P24v G5 23.8, FHD 🍃
- HP P22h G4 21.5" 🍃
- HP P22h G5 21.5, FHD 🍃 🌐
- HP P22 G4 21.5" 🍃
- HP P22 G5 21.5, FHD 🍃 🌐
- HP P22v G4 21.5" 🍃
- P22v G5 21.45, FHD 🍃
- HP P22va G4 21.45" FHD
- HP P204v 19.5" FHD
- HP P19 b G4 18.5" 🍃

INNOVATIONS THAT POWER

THE NEW EXPERIENCES FOR HYBRID WORK

2022 PORTFOLIO

YOUR BEST HYBRID WORK IS ON AN HP NOTEBOOK

REFRESH

REFRESH

NEW ID

NEW ID

NEW ID

16:10 DISPLAY				3:2 DISPLAY
ProBook **400 & 405 Series G9** (intel) AMD	EliteBook **600 & 605 Series G9** (intel) AMD	EliteBook **800 & 805 Series G9** (intel) AMD	EliteBook **1000 Series G9** (intel)	EliteBook **Dragonfly** (intel)
Modern Design for growing companies Performance for DT Transitions	Bringing Premium to all employees Secure & Manage remote + local Performance for DT Transitions Configurability & Flexibility	The gold standard for corporate Enhanced Collaboration Robust Connectivity	Redefining the lightweight corporate standard Enhanced Collaboration Contextual experiences	Form factor innovation Industry-leading weight thresholds Life-like collaboration, everywhere
Clamshell, x360	Clamshell	Clamshell, x360	Clamshell, x360	Clamshell
Intel® • P28 Higher TDP	ALL • Increased Security (HP Wolf Security for Business[40]) Intel® • P28 Higher TDP (14" & 15") AMD® • New AMD Lineup with Full AMD DASH/KVM Support -14" & 15"	ALL • 16:10 • 16" (replacing 15") Intel® • P28 Higher TDP (14" & 16")	• ALL: 16:10 • Starting at 2.5 lbs • Contextual experiences	• 13.5", 3:2, Magnesium Clamshell (New 1kg[70] platform)
Home / Office Navigator	Home / Office Navigator	Home / Office Navigator	Mobile Trailblazer	Mobile Trailblazer

DURABLE CONSTRUCTION

BUILT TO LAST

UNDERGOES 19

MIL-STD 810H TESTS[49]

120k HOURS

HP TOTAL TEST PROCESS[35]

The challenge of building thin, light, and powerful is to remember where this device will be used — in a mobile environment — a *moving* environment.

Quality cannot be sacrificed.

hp

2022 COMMERCIAL NOTEBOOKS

KEY CHANGES & INNOVATIONS

	PROCESSOR	CHASSIS	PANELS	MEMORY	WEBCAM
Dragonfly	Intel ADL U15	New	3:2	LPDDR5	5MP with wide field of view
1000 Series	Intel ADL U15	New	16:10	DDR5	5MP with wide field of view
800 Series	Intel ADL U15/P28*	New	16:10	DDR5	5MP with wide field of view
805 Series	AMD REMBRANDT 15W/28W	New	16:10	DDR5	5MP with wide field of view
600 Series	Intel ADL U15/P28	Cover A Change. (Elite branding)	Same (Sure View no longer offered in 15").	Same (DDR4)	720p HD with temporal noise reduction
605 Series	AMD BARCELO	New platform based on 600 chassis	New platform with same options as 600	DDR4	720p HD with temporal noise reduction
400 Series	ADL U15/P28*	Same	Same (Sure View no longer offered in 15")	Same (DDR4)	720p HD with temporal noise reduction
405 Series	AMD BARCELO	Same	Same (Sure View no longer offered in 15")	Same (DDR4)	720p HD with temporal noise reduction
200 Series	ADL U15/P28	Same	New 400 and 300 nit options	Same (DDR4) Up to 32GB	720p HD with temporal noise reduction
205 Series	AMD BARCELO	Same	New 400 and 300 nit options	Same (DDR4) Up to 32GB	720p HD with temporal noise reduction

* = ADL P28 not available on 13"

PANEL AND ASPECT RATIO EVOLUTION

Productivity boost with bigger displays, trackpads & keyboards

Lead in premium with this panel shift to provide improved productivity

+ 7% MORE VERTICAL SPACE*

+ 11% MORE VERTICAL SPACE*

5% MORE VISUAL REAL ESTATE

11% MORE VISUAL REAL ESTATE

16:9

16:10

3:2

ALL G8 PLATFORMS + PROBOOK 400/ELITEBOOK 600 G9

ELITE 1000 & 800 G9 SERIES

ELITE DRAGONFLY G3

The market is shifting to a modern design with a more efficient aspect ratio with productivity benefits

More vertical real estate
Display closer to eye level
Larger clickpad and keyboard
Eye Ease^{T7} low blue light option (400 nit and above)

Best for highly mobile users
View more, scroll less
Higher position of integrated webcam
Larger clickpad, keyboard and battery
Eye Ease^{T7} low blue light on all panels^{T9}

Compared to 13.3" 16:9

hp

2022 COMMERCIAL NOTEBOOKS

KEY VIDEO INNOVATIONS

		Elite Dragonfly G3	EliteBook 1000 G9	EliteBook 800 G9	ProBook 400 EliteBook 600 G9
HARDWARE	Camera Resolution	✔ (5MP)	✔ (5MP)	✔ (5MP)	HD
	Camera Interface	✔ (MIPI)	USB	USB	USB
	Temporal Noise Reduction (TNR)				✔
SOFTWARE[1]	Super Resolution				✔
	Backlight Adjustment	✔	✔	✔	✔
	Lowlight Adjustment	✔	✔	✔	✔
	Auto Frame	✔	✔	✔	
	Eye Contact	✔			
	Appearance Filter	✔			
	Background Adjustment	✔			
	myHP Video Controls GUI	✔	✔	✔	✔

✔ = New in 2022

hp

BRING AUTHENTICITY TO EVERY MEETING

With a 5MP camera[44] that keeps you looking sharp

◐ 5MP

◐ .92MP (HD)

Lower **resolution**

More **blurry**

Less **crisp**

Capture **more detail** with **5x** more pixels than an HD camera[54]

Higher **resolution**

Less **blurry**

More **crisp**

hp

NO MATTER WHERE OR WHEN YOU'RE WORKING
BE SEEN IN YOUR BEST LIGHT
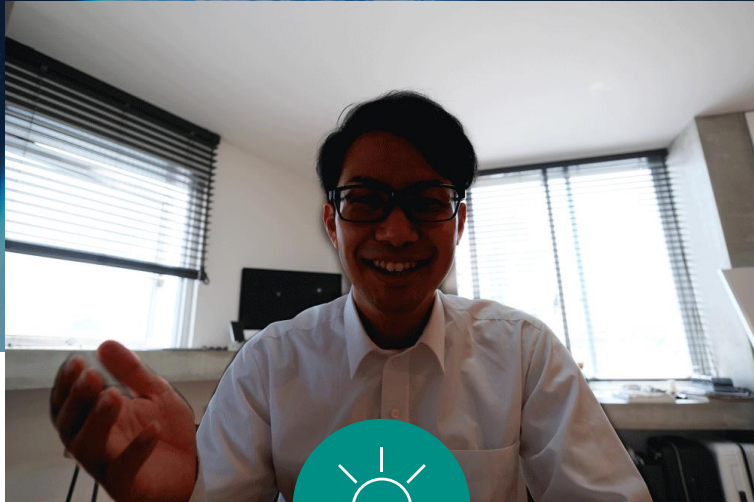
AVOID OVEREXPOSURE

Backlight WDR⁴ uses quality dual image sensors, working together to balance the background and foreground lighting and contrast.

BRIGHTEN DARK ROOMS

Low light Improvement⁴ detects if the room is too dark and automatically brightens the image to give you vibrant image quality
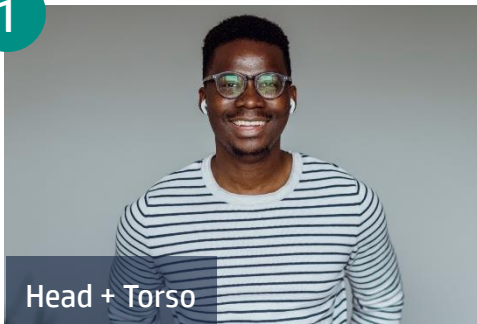
Your camera sees what's going on in the room and automatically adjusts for optimal video.

BREAK FREE FROM YOUR DESK

With HP Auto Frame[38]

You choose what view you share:

1 Head + Torso

2 Head + Shoulders

3 Head Only

Your meeting moves with you, keeping you front and center.

"I can move around and still be clear, in-focus, and centered in the video frame."

2022 COMMERCIAL NOTEBOOKS

KEY AUDIO INNOVATIONS

		Elite Dragonfly G3	EliteBook 1000 G9	EliteBook 800 G9	ProBook 400 EliteBook 600 G9
HARDWARE	Sound Pressure Level	≥78 db	≥74 db	≥74 db	≥70 db
	Bass Rolloff (lower is better)	≤ 200Hz	≤ 350Hz	≤ 350Hz	≤ 600Hz
	Microphones	✔ (Top Edge, 2)	Front (2)	Front (2)	Front (2)
	Speakers	4	✔ (2)	✔ (2)	✔ (2)
	Discrete Amplifiers	Yes (4)	✔ (2)	✔ (2)	(integrated AMP only)
	Frequency Optimized Speakers	✔			
	Directional Firing Speakers	✔ (Front/Down)	✔ Side/Down	✔ Side/Down	Top
SOFTWARE	HP Dynamic Voice Leveling[T1]	✔	✔	✔	
	HP AI Noise Reduction 2.0[T1] with HP Clear Voice	✔	✔	✔	✔
	HP Dynamic Audio[T10]	✔	✔	✔	✔
	HP Sound Calibration[T11]	✔	✔	✔	✔

✔ = New in 2022

STAND UP AND BE HEARD

HP Dynamic Voice Leveling[4]

Walk and talk. Stand and stretch. Your PC will still hear your voice.

HP Dynamic Voice Leveling[7] automatically enhances microphone gain to optimize voice clarity within 3 meters of the PC.
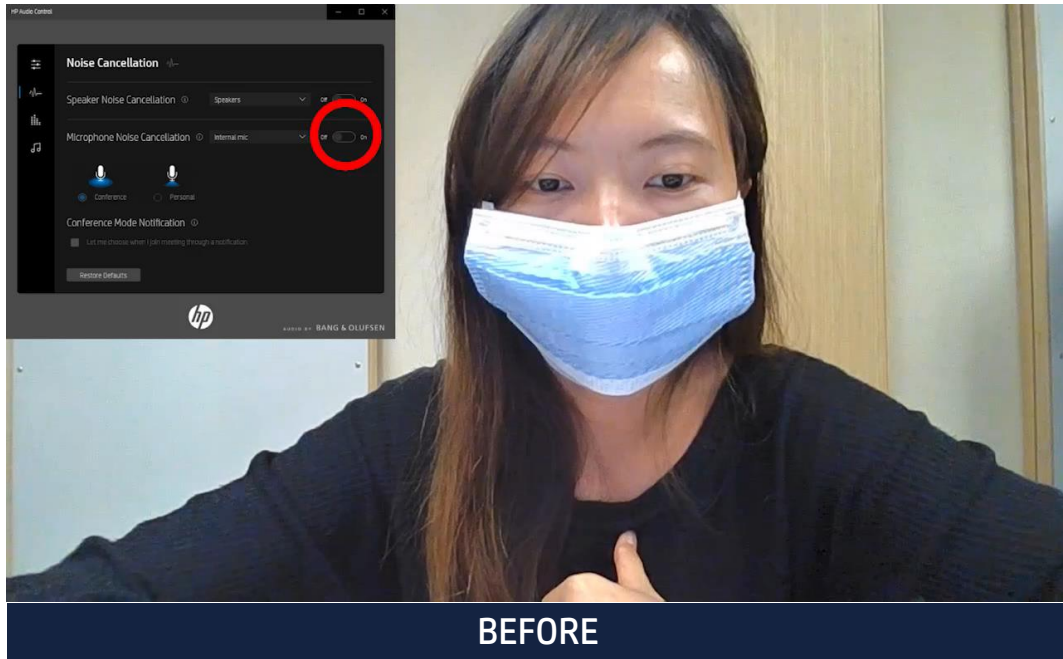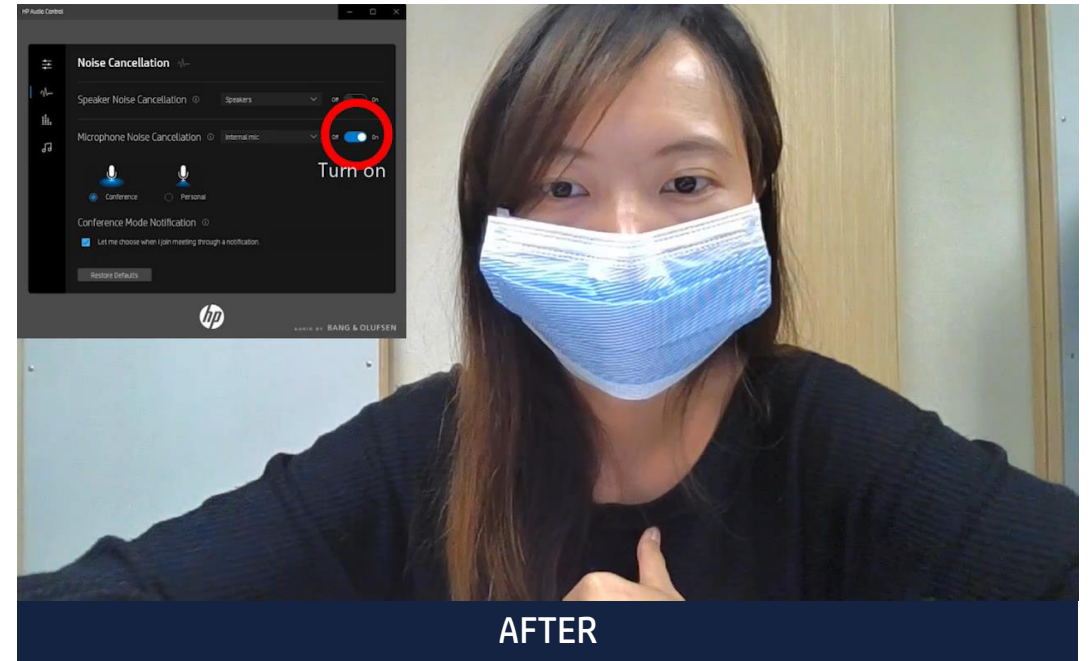
3m pickup range

BE HEARD LOUD AND CLEAR

With HP AI-based noise reduction 2.0[4]

BEFORE

People say **I sound muffled** on conference calls when I'm **wearing a mask.**

AFTER

People can **hear me clearly** even when I'm wearing a mask.

FILTERS INBOUND & OUTBOUND NOISE

AI-based advanced noise reduction filters my background noise and yours for an enhanced conference call experience.

EXPERIENCE IMMERSIVE, PREMIUM AUDIO

SOUND TAILORED TO YOU

Tune your headphone audio for an immersive sound experience tailored specifically to your preferences with HP Sound Calibration.[37]

HEAR WHAT'S IMPORTANT

HP Dynamic Audio, a new AI-based audio experience, tunes output to speech, music, and movies all while suppressing background noise.[13]

REMARKABLE SOUND

Audio by Bang & Olufsen, four top-firing speakers, and four discrete amps work together to create an immersive sound that comes through crystal clear whether you're on a conference call or watching a movie.

BETTER, FASTER CONNECTION TO YOUR WORK

5G

ELITEBOOK DRAGONFLY, 1000 & 800 SERIES

- Support for 4x4 antenna for 5G^{T12}
- Higher bandwidth
- Access to a secure network
- Constant availability of a private network

Wi-Fi 6E

FROM 400 THROUGH 1000 SERIES^{T13}

- Future proof, next-gen technology
- Speedier internet with less congestion 6GHz band
- More devices can share single network without lag

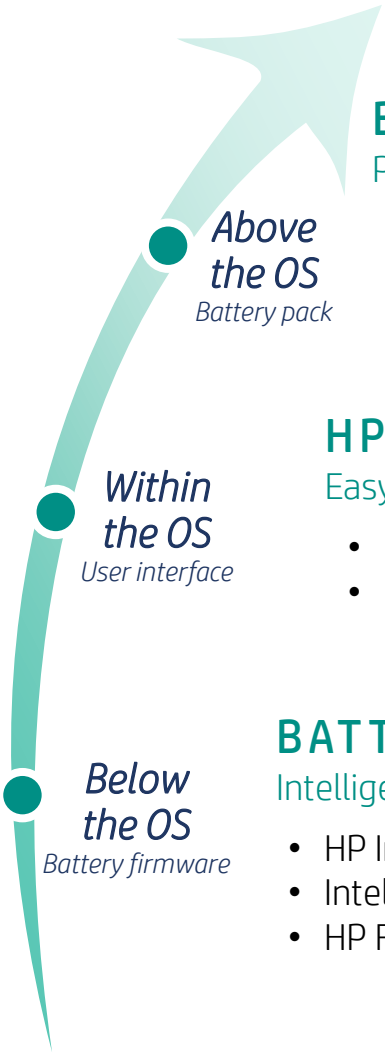**5G** is foreseen as the fastest growing technology in this decade

Wired ethernet connections are being **fully replaced** by wireless solutions

OPPORTUNITIES

- Broaden adoption of 5G across premium portfolio
- Future-proof with next generation of Wi-Fi with 6E

hp

INTELLIGENT BATTERY FOR HYBRID WORK

Above the OS
Battery pack

Within the OS
User interface

Below the OS
Battery firmware

BATTERY SHIELD[T14]
Peace of mind with stronger battery pack protection

- Metal plate around battery pack to protect from external damage caused during daily usage, drop, battery service, logistics.
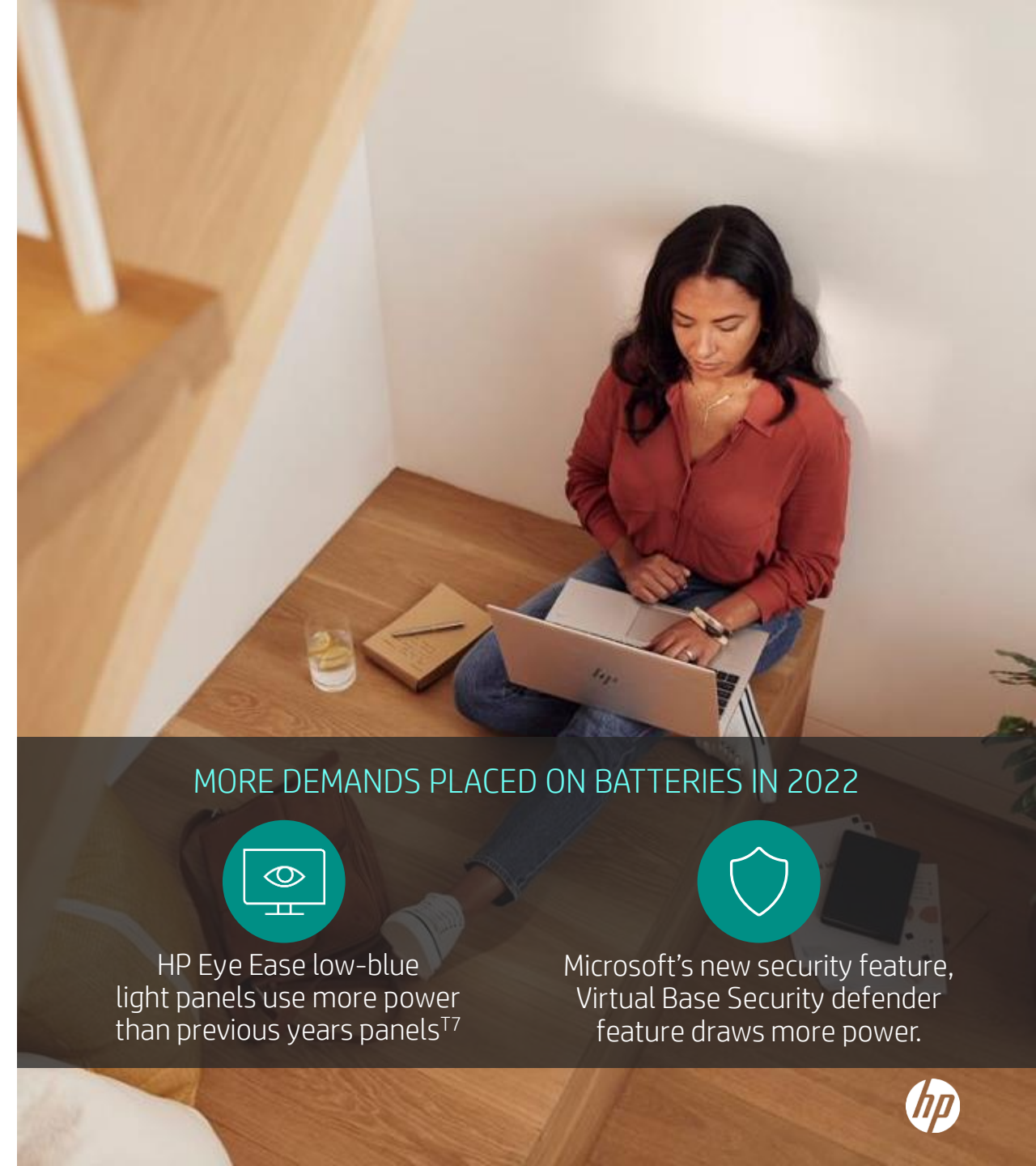
HP POWER MANAGER[T15]
Easy Battery Management

- My Battery Status
- Battery Charge Manager

BATTERY HEALTH MANAGER 3.0[T24]
Intelligent battery with AI

- HP Intelligent Charging algorithm prevents battery swelling
- Intelligent Charging Scheduler
- HP Fast Charge Plus[T16]

MORE DEMANDS PLACED ON BATTERIES IN 2022

HP Eye Ease low-blue light panels use more power than previous years panels[T7]

Microsoft's new security feature, Virtual Base Security defender feature draws more power.

NEXT-GEN MEMORY
THAT FUELS SPEED & EFFICIENCY

INDUSTRY-WIDE TRANSITION TO DDR5

DDR5 memory offers

- 50% higher bandwidth for a faster and more responsive PC
- Dual channel DIMM architecture for more efficient access and better signal integrity
- On-die Error Correction Code removes burden on the CPU, increasing overall system efficiency
- Lower power consumption for better battery life
  - LPDDR5 has lowest power consumption

DDR5 supported on: EliteBook 800/805/1000 G9
LPDDR5 supported on: Dragonfly G3

2022 platforms offer a broad range of flexible memory configurations:

- **Single or Dual channel options** (choose upgradeability or maximum performance)

- **DDR4** for more competitive pricing

- **DDR5** for latest technology and maximum performance

- **LPDDR5** for lowest power consumption yet maximum performance

hp

EXPANDED INTEL PROCESSOR OPTIONS

HYBRID WORK COMPUTING DEMANDS MORE POWER

Intel 12th Gen processors feature a new architecture
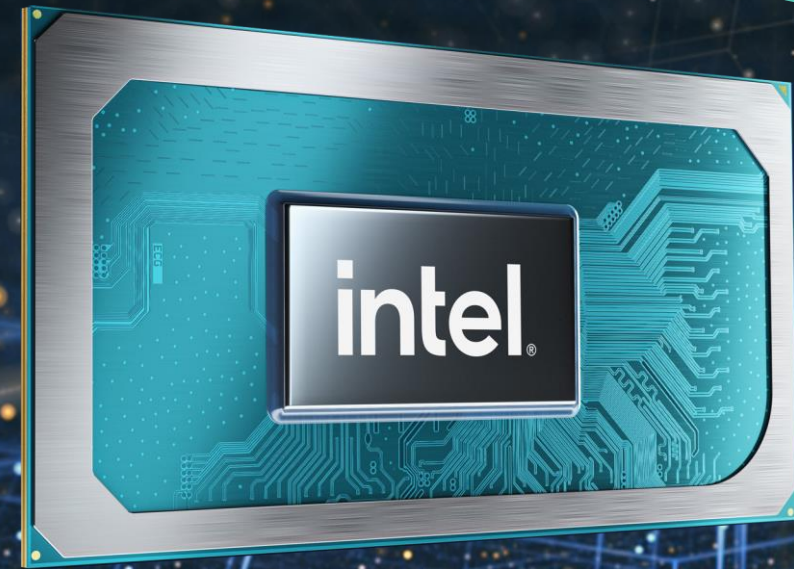
Two types of cores - Performance Cores for demanding tasks and Efficient Cores for background tasks. **Intel Thread Director** routes workloads to the **best cores for the job**

Intel 12th Gen now offers two levels of processors

P28 is better for home office navigators who are constantly multitasking and need *more power* to work with more complex files and data sets. Also provides discrete graphics power without the discrete card in a quieter and cooler device.

U15 – is best suited for thinnest & lightest designs with an emphasis on *mobility & battery life* instead of raw power.

	Dragonfly Series	1000 Series	800 Series	600 Series	400 Series	200 Series
U15	✓	✓	✓	✓	✓	✓
P28			✓ except 13"	✓ except 13"	✓	✓

From Year of the Upgrade to Year of the Refresh

2022: Year of the Upgrade

- **Broadest portfolio redesign** for hybrid & investment in premium experiences
- **Portfolio simplifications** to maximize investment ROI and x-leverage
- **Protect RFPs** by extending specific N-1 offerings (X2, 430)
- **Invest in AMD** for CEP/FED

2023: Year of the Refresh

- **Refresh technology** for broader portfolio to stay competitive
- **Capitalize on existing product** by introducing new experiences & bringing premium experiences into mainstream
- Continual **cost optimization** and new lower cost options
- **Adapt to market challenges** with cost-aggressive SKUs

Delivering Experiences to Power Hybrid Work

Inclusive Collaboration
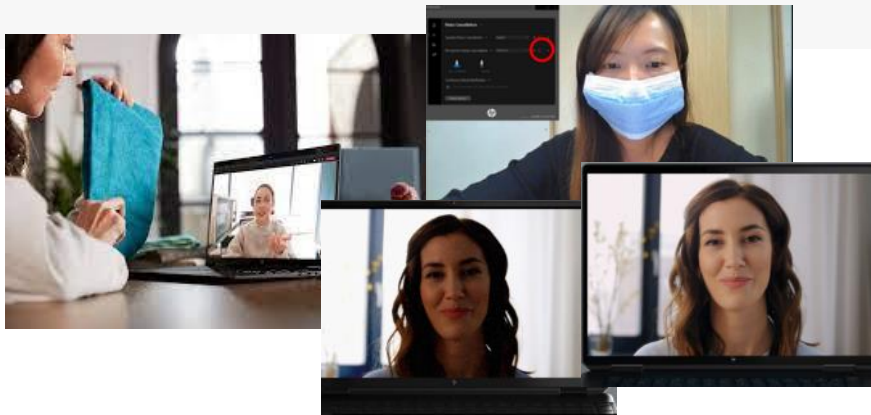
be seen and be heard with intelligent conferencing

2022

5MP cameras with HP Auto Frame[T1]
Updated audio AI ▪ Discrete amps

NEW 2023

Enhanced collaboration with HP Presence 2.0

Premium 88° Wide Field of View ▪
5MP to mainstream ▪
Multi-camera streams[8]

Seamless Transitions

context & place aware with adaptive connectivity and performance

5G ▪ Wi-Fi 6E ▪ DDR5 ▪ Context Aware[T8]
Sure Recover ▪ HP Auto Lock and Awake[T3]

More freedom with performance, connectivity & security

5G[7] & WiFi6E (AMD)[10] ▪ 32 GB LPDDR5 (thin & light)
HP Context Aware[T8]: Lap detection

Personalization

make space for productivity and well being in the "anywhere" office

16:10 aspect ratios ▪ HP Eye Ease[T7]
larger keyboard & clickpad

More productivity power
to shape your experience

Intelligent Hibernate
OLED Power Saving & image quality
Improved cool & quiet experience

2023 Key Changes & Innovations

	PROCESSOR	CHASSIS	PANELS	MEMORY	WEBCAM
Dragonfly	Intel RPL U15	Same	3:2	LPDDR5	5MP with 88° field of view
1000 Series	Intel RPL U15/P28*	Same	16:10 (super high res, 2560x1600)	DDR5/ LPDDR5(X360)	5MP with 88° field of view
800 Series	Intel RPL U15/P28*	Same	16:10 (super high res, 2560x1600 & OLED in 860)	DDR5/ LPDDR5(830, X360)	5MP with 88° field of view
805 Series	AMD Phoenix 15W/28W	Same	16:10 (super high res, 2560x1600 & OLED in 865)	DDR5/ LPDDR5(835)	5MP with 88° field of view
600 Series	Intel RPL U15/P28*	2x USBC	Same (16:9) adding Low Blue Light** (Sure View no longer offered in 15")	Same (DDR4)	720 HD, HD + IR, 5MP+ IR* (not available in 630)
605 Series	AMD Barcelo-R	Same	Same (16:9) adding Low Blue Light (Sure View no longer offered in 15")	Same (DDR4)	720 HD, HD + IR, 5MP+ IR*
400 Series	Intel RPL U15/P28	2x USBC	Same (16:9) adding Low Blue Light (Sure View no longer offered)	Same (DDR4)	720 HD, 5MP+ IR*
405 Series	AMD Barcelo-R	Same	Same (16:9) adding Low Blue Light (Sure View no longer offered)	Same (DDR4)	720 HD, 5MP+ IR*
200 Series	Intel RPL U15/P28 ADL-N	New ID	Same (16:9) New 400 and 300 nit options	Same (DDR4) Up to 32GB	720p HD with temporal noise reduction
205 Series	AMD Barcelo-R/ Mendocino	New ID	Same (16:9) New 400 and 300 nit options	Same (DDR4) / LPDDR5(Mendocino) Up to 32GB	720p HD with temporal noise reduction

* = ADL P28 NOT available on 13 & x360"   ** = NOT available on 630

*optional

An intelligent battery that is optimized for hybrid work

Longer Life	**Battery Health Manager**	Battery Health Manager with Intelligent Charging algorithm enables efficient power use and extends the useful life of the battery throughout PC lifecycle [12] [T24]
Enhanced Safety	**HP Battery Shield 2.0**	New physical protection for 38Wh battery offers stronger protection at a lighter weight versus metal-based Battery Shield [T14]
New for 2023	**Intelligent Hibernate**	Works with Intelligent Charging Scheduler to place PC in hibernation to reduce stand-by battery consumption during idle use
New for 2023	**OLED Power Saving Mode**	Enjoy a premium display experience with less strain on battery life

2023 Key Intelligent Features

	Elite Dragonfly G4	EliteBook 1000 G10	EliteBook 800 G10	EliteBook 600 G10	ProBook 400 G10
Auto Lock & Awake	✔	✔			
Context Aware: On lap/On table mode	✔	✔			
Context Aware: In/Out of bag	✔	✔			
Auto Brightness (ALS)	✔	✔	✔		
Adaptive Color (ACS)	✔	✔	✔		
Wake on Touch (tablet mode x360 only)		✔	✔		✔ (405)
Intelligent Hibernate	✔	✔			
System Control	✔	✔			
Smart Sense	✔	✔ (P28 Intel EPO)	✔ (P28 Intel EPO)		
Intel Connectivity Performance Suite (ICPS) – For select Intel Evo platforms	✔	✔	✔	✔	
HP Battery Shield 2.0 (SET)	✔	✔	✔		
OLED Power Saving	✔				

✔ = New in 2022   ✔ = New in 2023

Latest-gen memory that fuels speed & efficiency

DDR4 for best value

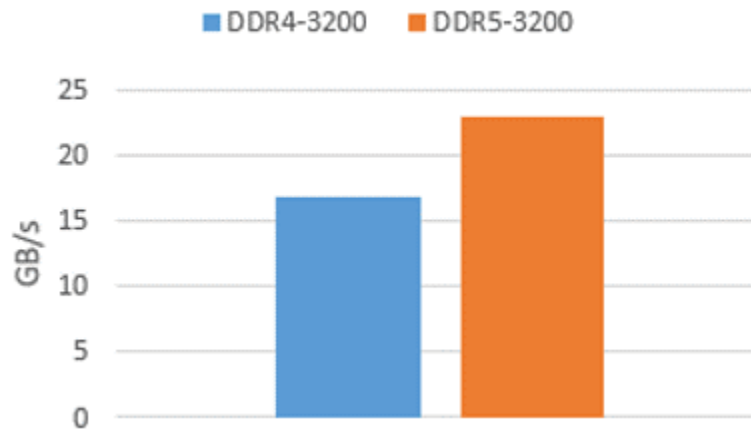**DDR5** for latest technology, lower power consumption for more efficient use of battery power and high performance

LPDDR5 for lowest power consumption for most efficient use of battery power and maximum performance
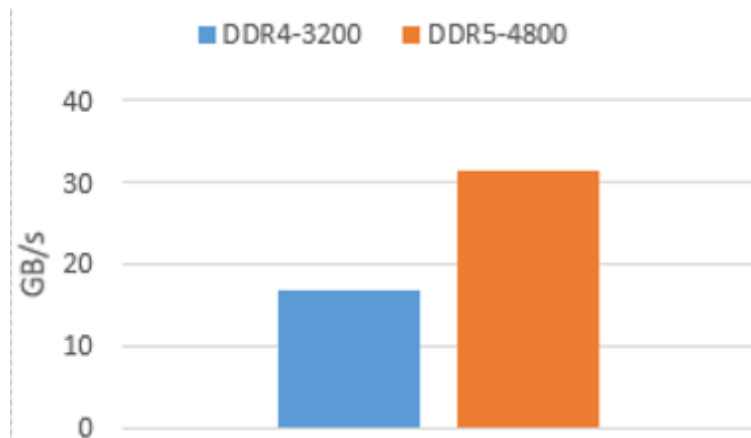
DDR4 3200 vs DDR5 3200
Effective bandwidth[T29]

1.36x more bandwidth with DDR5

DDR4 3200 vs DDR5 4800
Effective bandwidth[1]

1.87x more bandwidth with DDR5 4800

Understanding DDR4, DDR5 & LPDDR5

DDR4

+

+ 50% higher bandwidth for a **faster & more responsive PC**[1]

+ Better for **graphics, multi-tasking,** high-performance apps

+ Lower power consumption for **longer battery life**

+ **Overall system efficiency** by removing burden on the CPU

= DDR5

+

Further improvement to battery life, graphics and performance

= LPDDR5

Small form factors require soldered memory that is not upgradeable

32GB capacity onboard is only available with LPDDR5 in 2023

Premium Memory Offerings

Memory Offerings	Dragonfly Folio G3	Dragonfly G3 (clamshell)		1040 (clamshell)		x360 1040 / x360 830		830/835 (clamshell)		840/860 (clamshell)	
Generation	G3	G3	G4	G9	G10	G9	G10	G9	G10*	G9	G10
8GB LPDDR5 🔧	√ 🔧	√ 🔧	√ 🔧				√ 🔧		√ 🔧		
16GB LPDDR5 🔧	√ 🔧	√ 🔧	√ 🔧				√ 🔧		√ 🔧		
32GB LPDDR5 🔧	√ 🔧	√ 🔧	√ 🔧			—	√ 🔧	—	√ 🔧		
8GB DDR5				√	√	√ 🔧		√ 🔧		√	√
16GB DDR5				√	√	√ 🔧		√ 🔧		√	√
32GB DDR5				√	√	—		—		√	√
64GB DDR5				√	√	—		—		√	√
16GB DDR4										√ (ADL)	
32GB DDR4 (2x16GB)										√ (ADL)	

🔧 Memory option not serviceable or upgradable

HP Dock Manageability Features

Features	HP USB-C G5 Essential Dock	HP USB-C G5 Dock	HP USB-C/A G2 Universal Dock	HP Thunderbolt G4 Dock
Firmware Update	Connected[T32]	Disconnected[T39]	Disconnected[T39]	Disconnected[T39]
PXE Boot[9]	√	√	√	√
OOB Wake on LAN	-	√	√	√
MAC Address Pass-Through	√[T34]	√	√	√
eTag	-	√	√	√
Disable LAN	-	√	√	√
Secure FW Update[12]	-	-	-	√[12]
Event Messaging	-	√	√	√
LAN/WLAN Switching	√	√	√	√
Wired vPro	-	-	-	√

2023 Portfolio
Step Up Path

Dragonfly G4
REFRESH

Best collaboration and productivity experiences in a lightweight, beautifully designed, secure device.

+
- Lightest and thinnest
- Quad Speakers
- Top Edge Mics
- OLED panel option and power saving mode

EliteBook 1000 G10
REFRESH

Ultra lightweight devices for the freedom to work and truly collaborate from anywhere.

+
- Super light weight
- Intelligent Hibernate

EliteBook 800/805 G10
REFRESH

Gold standard for enterprise, setting the bar with performance, connectivity, collaboration.

+
- Enhanced collaboration
- Enhanced audio & discrete amps
- 5G connectivity
- Ambient light & color sensors
- Embedded Sure Recover
- HP Auto Lock and Awake
- HP Context Aware (Intel only)
- QHD+ OLED panel option

EliteBook 600/605 G10
REFRESH

Bringing premium to all employees across all hybrid workstyles. Enterprise security and manageability. Configurability & flexibility.

+
- Management w/ Intel vPro & vPro Essentials/AMD DASH
- Smart card / NFC option
- Up to 64GB DDR4 / 2TB SSD
- Thunderbolt™ (Intel only)
- Global series

ProBook 400/405 G10
REFRESH

Affordable devices designed with commercial grade feature; durable design

+
- Aluminum A/C chassis
- HP Sure Run & Sure Recover
- Higher level of MIL-STD durability
- Two multifunction USB-C (Intel only)

HP 200/205 G10
NEW ID
TBA

Stay connected with Powerful technology

- Latest processor technology
- Essential business features

EXPERIENCE UPGRADES

HARDWARE UPGRADES

14"/15" Plastic chassis, Opt metal A cover, Clamshell	14"/15" Aluminum A/C covers Clamshell & x360	13/14/15" Aluminum A/C/D covers Clamshell	13/14/16" All aluminum chassis Clamshell & x360	14" Magnesium chassis Clamshell & x360	13.5" Magnesium chassis Clamshell
Intel and AMD 15W /28W (Intel only)	Intel and AMD -15W 28W (intel only)	Intel and AMD 15W 28W(Intel only)	Intel and AMD 15W 28W	Intel 15W 28W	Intel 15W
16:9 Display	16:9 Display	16:9 Display	16:10 Display	16:10 Display	3:2 Display
HD TNR Camera	HD TNR or 5MP Camera	HD TNR or 5MP Camera	5MP Camera 88° FOV	5MP Camera 88° FOV	5MP MIPI Camera 88° FOV
DDR4 Memory	DDR4 Memory	DDR4 Memory	DDR5/LPDDR5 Memory	DDR5/LPDDR5 Memory	LPDDR5 Memory
Wi-Fi 6 WLAN	Wi-Fi 6E WLAN / 4G WWAN	Wi-Fi 6E WLAN / 4G WWAN	Wi-Fi 6E WLAN / 5G WWAN	Wi-Fi 6E WLAN / 5G WWAN	Wi-Fi 6E WLAN / 5G WWAN

HP ELITEBOOK SERIES G9

PRIVACY & SECURITY

SECURITY BY DEFAULT

WINDOWS 11 DELIVERS POWERFUL PROTECTION FROM CHIP TO CLOUD

In Windows 11, hardware and software security work together to help keep users, data, and devices protected.
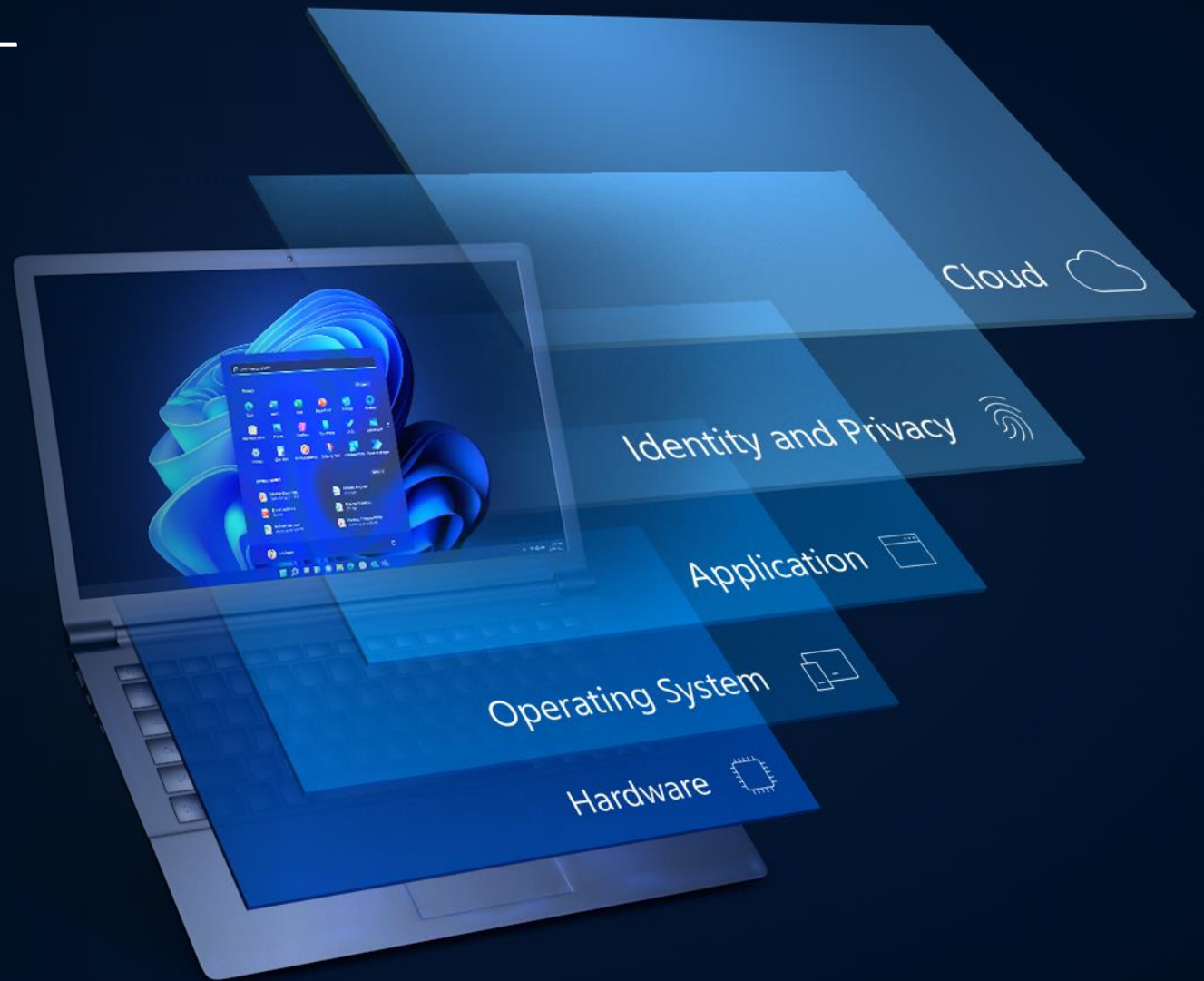
Protects against threats by separating hardware from software with hardware root-of-trust, for powerful security from the start

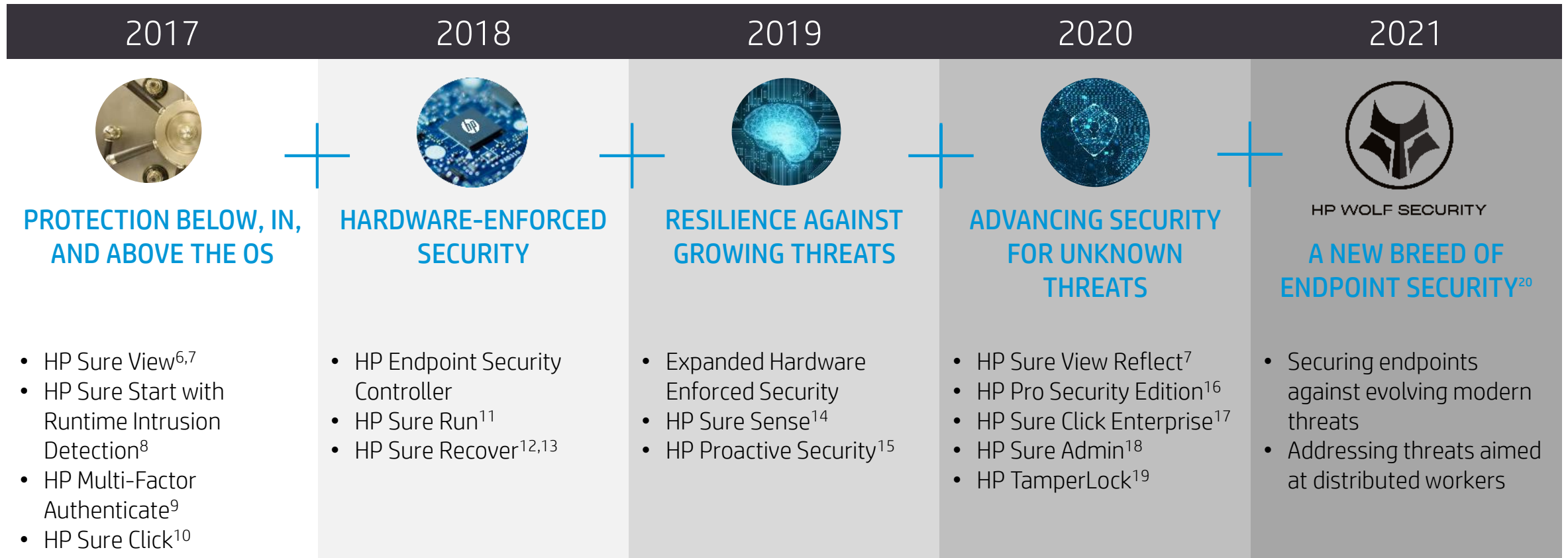Protect the OS against unauthorized access to critical data

Delivers robust application security and prevents access to unverified code

Protects user identities with passwordless security

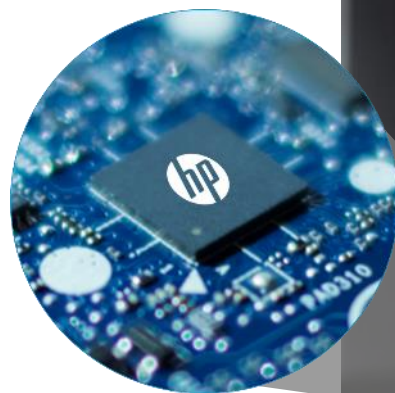Extends security to the cloud to help protect devices, data, apps, and identities from anywhere

Cloud

Identity and Privacy

Application

Operating System

Hardware

HOW HP BUILDS THE
WORLD'S MOST SECURE AND MANAGEABLE PCs[5]

2017	2018	2019	2020	2021

PROTECTION BELOW, IN, AND ABOVE THE OS

HARDWARE-ENFORCED SECURITY

RESILIENCE AGAINST GROWING THREATS

ADVANCING SECURITY FOR UNKNOWN THREATS

HP WOLF SECURITY

A NEW BREED OF ENDPOINT SECURITY[20]

- HP Sure View[6,7]
- HP Sure Start with Runtime Intrusion Detection[8]
- HP Multi-Factor Authenticate[9]
- HP Sure Click[10]

- HP Endpoint Security Controller
- HP Sure Run[11]
- HP Sure Recover[12,13]

- Expanded Hardware Enforced Security
- HP Sure Sense[14]
- HP Proactive Security[15]

- HP Sure View Reflect[7]
- HP Pro Security Edition[16]
- HP Sure Click Enterprise[17]
- HP Sure Admin[18]
- HP TamperLock[19]

- Securing endpoints against evolving modern threats
- Addressing threats aimed at distributed workers

HP ENDPOINT SECURITY CONTROLLER

UNIQUE HARDWARE ENABLES RESILIENT DEVICES

Protection starts at the lowest level of the PC

- ✓ Hardware-enforced technology only on HP PCs
- ✓ ESC always running, even when the system is powered off
- ✓ Hardware Root of Trust: protection, detection & recovery
- ✓ Physically isolated

Protection continues during runtime

- ✓ Ongoing monitoring for health of HP's security system
- ✓ HP Wolf Security cryptographic functions secured by hardware

3RD PARTY CERTIFIED
by an accredited independent test lab
(Overseen by ANSSI)

HP Sure Start[6]   HP Sure Run[11]   HP Sure Recover[12,13]

HP WOLF SECURITY FOR BUSINESS

HP WOLF SECURITY

| HARDWARE-ENFORCED PROTECTION		DEVICE	IDENTITY/PRIVACY	DATA
	ABOVE THE OS		**HP SURE VIEW[6,7]** Built-in Privacy Screen	
			HP PRIVACY CAMERA / HP SURE SHUTTER[25,26] Built-in Webcam Privacy Shutter	
	IN THE OS		**HP PRESENCE AWARE** Auto Login/Logoff	**HP SURE CLICK[10]** Hardware-enforce secure browsing/viewing solution
		MICROSOFT SECURED-CORE PC[23] Best In Class OS Security		**HP SURE SENSE[14]** Protect from never-before-seen malware
	BELOW THE OS	**HP BIOSPHERE[24]** Comprehensive BIOS Management		**HP SECURE ERASE[27]** Permanent Data Removal on HDD/SSD
		HP SURE START[8] Self-Healing Endpoint Security Controller Protection		**CERTIFIED SELF-ENCRYPTING DRIVES** HW Data Encryption
		HP SURE RUN[11] Protect Applications with Persistence & Kill Prevention		
		HP SURE RECOVER[13] Embedded Image Recovery		
		HP SURE ADMIN[18] Cryptographically Secure BIOS Management		
		HP TAMPERLOCK[19] Tamper Protection		
		HP CLIENT SECURITY MANAGER[28] Local Security Management (HP Sure Run & HP Sure Recover)		
		HP ENDPOINT SECURITY CONTROLLER		

HP SURE RUN

PROTECTS AGAINST ATTACKERS TURNING OFF CRITICAL CUSTOM APPS

HP Sure Run[11] leverages the HP Endpoint Security Controller to:

- **MONITOR** key processes.
- **ALERT** of any changes.
- Dynamic **PERSISTENCE.**
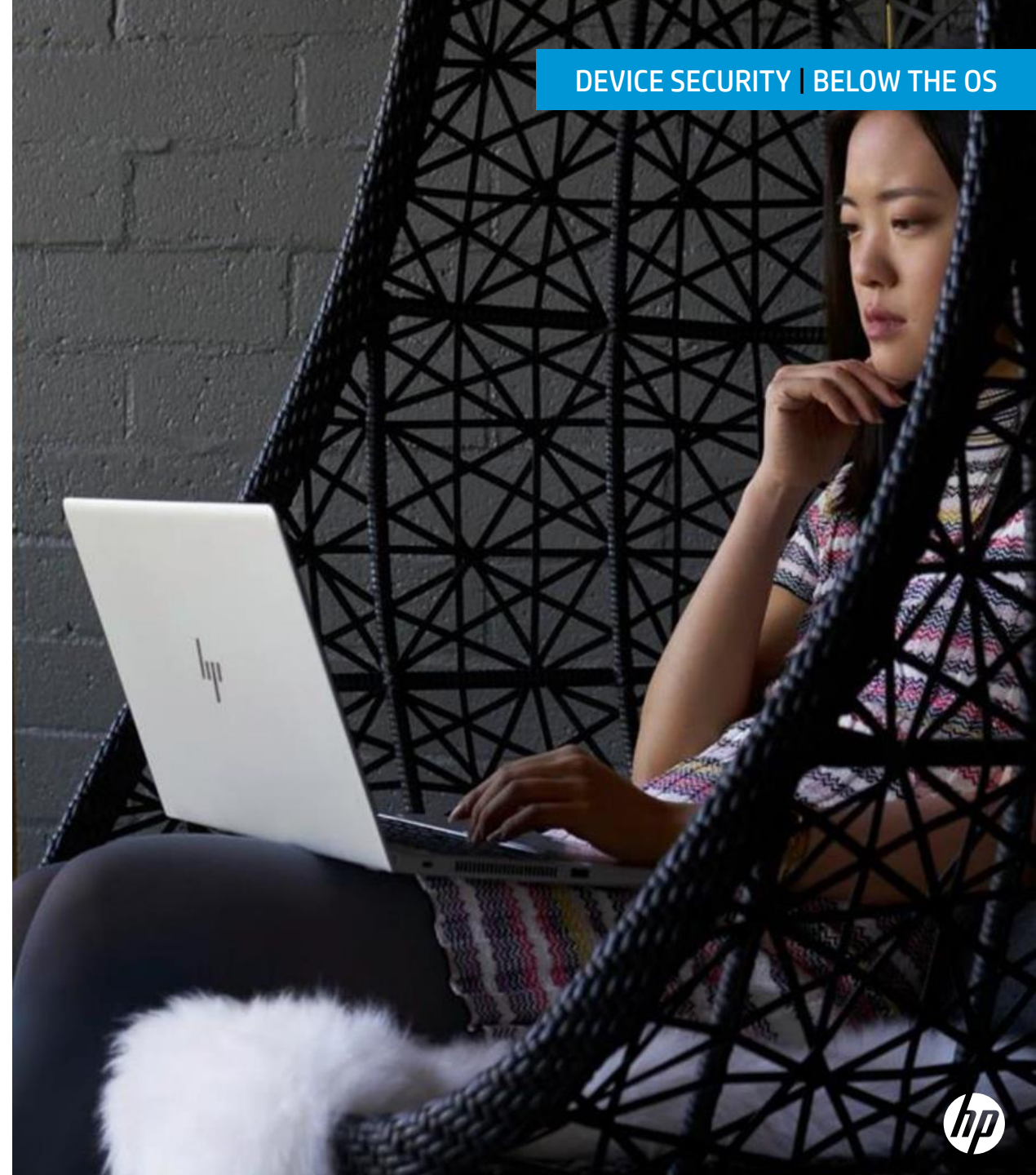
HP SURE RECOVER[12,13]

REMOVE THE RISK OF A TIME-CONSUMING BUSINESS DISRUPTION FROM A DESTRUCTIVE MALWARE ATTACK

SECURE REIMAGING
For trusted systems

RECOVER QUICKLY
In minutes instead of hours

SUPPORT BUSINESS CONTINUITY
with user-enabled reimaging

HOW LONG WOULD YOU NEED TO RECOVER 1,000 MACHINES?

"Continual trend of destructive attacks, wipers, malware, and new threats are coming out regularly"

HP TAMPERLOCK[19]

PEACE-OF-MIND FROM PHYSICAL INTRUSION THREATS

SENSORS DETECTION
For case intrusion, and configurable rich policy controls

PHYSICAL ATTACK PROTECTIONS
Against DMA attacks, flash replacement attacks, side channel attacks, TPM probing attacks
+ HP Endpoint Controller storage protection

HP SURE CLICK[10]

PROTECTION THAT DOESN'T REQUIRE DETECTION

SECURE BROWSING
- Isolates each tab in a secure virtual container.

FILE PROTECTION
- Protection for Email Attachments, Word and PDF files open in a secure virtual container.
- Word and PDF file download protection using IE, Edge, Chrome, and Firefox.

92% OF MALWARE IS DELIVERED THROUGH EMAIL[34]

67% IS EMBEDDED IN WORD DOCUMENTS[34]

HP SURE VIEW

HP SURE VIEW REFLECT[7]

- ✓ Copper tinted reflective privacy that's 2x more effective than the competition[1]
- ✓ The world's most advanced privacy in its class[42]
- ✓ Functions well in both bright & dark environments

HP SURE VIEW GEN3[6]

- ✓ Improved battery life
- ✓ Better visuals with brighter display and higher contrast ratio

▲ HP Sure View Reflect

▼ HP Sure View Gen3

HP PRIVACY CAMERA[25]

MANUAL SHUTTER THAT PROTECTS FROM SURVEILLANCE AND SITS JUST BEHIND THE COVER GLASS OF YOUR PC.

Simply swipe the glass to enable the physical shutter, which blocks both the front- and back-facing cameras simultaneously.

- ✓ Easy-to-use physical webcam shutter
- ✓ Seamlessly integrated in the touch screen or as a pop-up webcam
- ✓ Provides peace-of-mind against malicious webcam surveillance

HP SURE SHUTTER[26]

SIMPLY PRESS A KEY TO ACTIVATE AN ELECTRONIC SHUTTER OVER YOUR PC'S WEBCAM

Avoid any accidental video conferences and stay hidden from malicious attacks.

HP Sure Shutter uses the HP Endpoint Security Controller to control the camera shutter, isolating the experience from OS attacks.

SURE SHUTTER KEY

HP PRESENCE AWARE[41]

PEACE-OF-MIND IN KEEPING YOUR DATA SAFE AND INSTANTLY RESUMING WORK

AUTOMATICALLY

LOCKS WHEN YOU LEAVE
Walk-away lock allows the system to dim and/or lock when you are no longer present in front of your system

WAKES WHEN YOU RETURN
Wake-on presence detects your presence and awakes system

SEAMLESSLY AUTHENTICATES WITH WINDOWS HELLO™