DELLTechnologies

Precision 3680 Tower

Intelligent performance

The Precision 3680 is the world's fastest workstation for single-threaded applications. Experience blistering power with Unlimited Turbo Duration for 125W processors or take advantage of enhanced power levels for 65W CPUs. Configure up to 450W professional graphics from NVIDIA or AMD, with dual graphics options available. Our new Premium Cooling Solution and enhanced side panel venting keeps the system cool and quiet, even at maximum performance.

Immersive productivity and design

The Precision 3680 tool-less chassis and large motherboard make accessing and upgrading components a breeze. The tower offers scalability with support for up to 128GB memory, 28TB total storage, and 3 PCIe slots. Connect your entire ecosystem with a wide variety of ports and slots and support for 4K and 8K monitors. Experience seamless productivity with native 1GbE Ethernet, WiFi 6E and Bluetooth 5.3.

Mission critical reliability and security

All Precision workstations are tested and certified by leading software vendors, so you can rest easy knowing your system will perform the way you expect it to. Take full advantage of all your application's latest features, including AI. To further reliability we offer ECC memory and Dell Reliable Memory Technology Pro, reducing the chance for the "blue screen of death". Also, with the industry's most secure commercial PCs* you are protected with unique built-in security features that our competitors cannot match. Layer on advanced threat protection with industry-leading partner software.

*Based on Dell internal analysis, September 2023. Applicable to PCs on Intel processors. Not all features available with all PCs. Additional purchase required for some features.
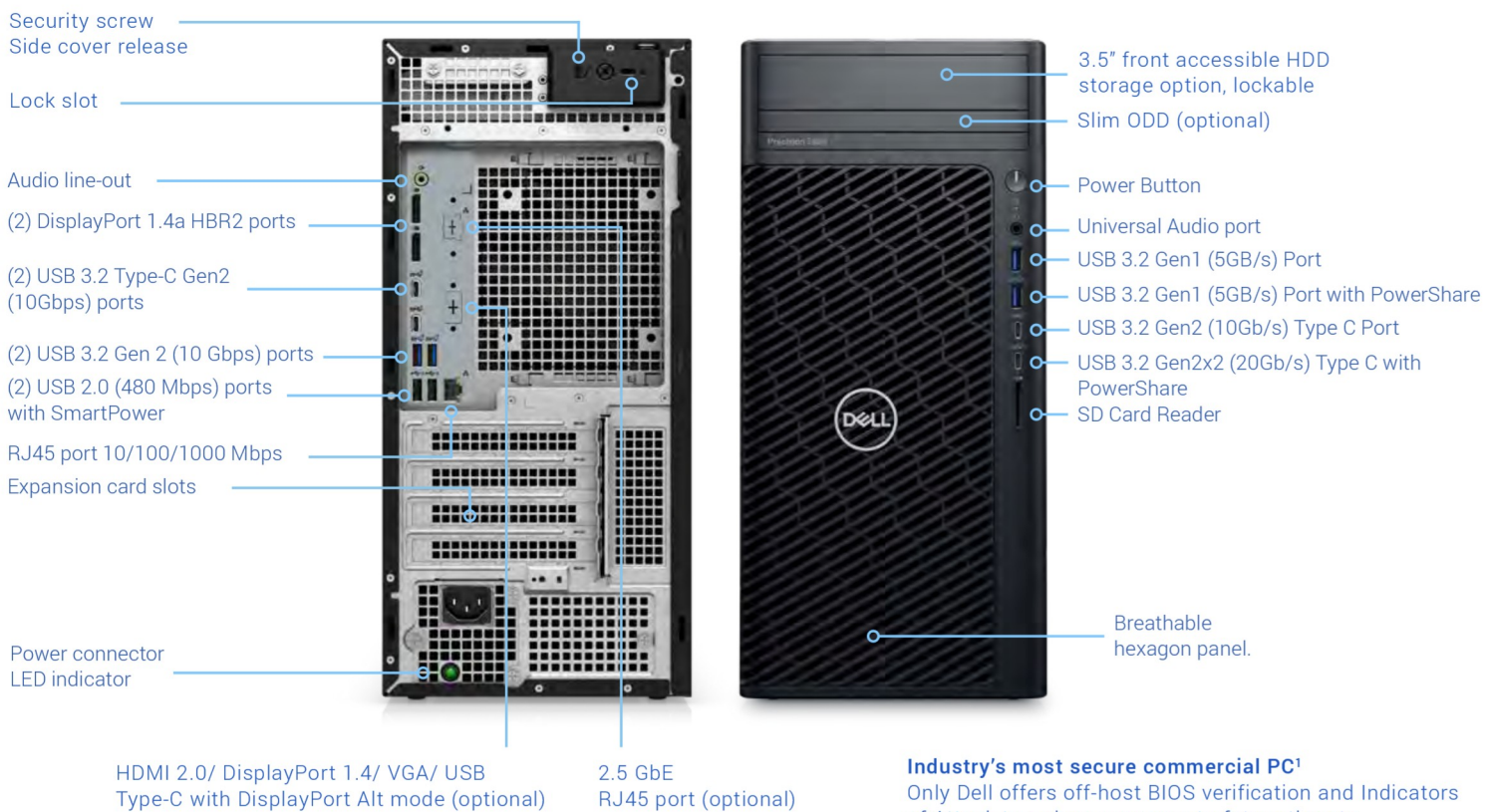
Smart performance that scales.

A cost-efficient tower design featuring outstanding performance, scalability, improved cooling and built-in AI responsiveness.

Intelligent Performance
Up to 14th Gen Intel® Core™ i9K Core (8P+16E) Processors (125W), Up to 450W Professional Graphics from NVIDIA or AMD, up to 28TB storage, RAID support, up to 128GB or up to 4400MT/s ECC and non-ECC DDR5 memory

Reliability
ISV Certified
ECC Memory
Reliable Memory Technology Pro

Security screw
Side cover release

Lock slot

Audio line-out

(2) DisplayPort 1.4a HBR2 ports

(2) USB 3.2 Type-C Gen2 (10Gbps) ports

(2) USB 3.2 Gen 2 (10 Gbps) ports

(2) USB 2.0 (480 Mbps) ports with SmartPower

RJ45 port 10/100/1000 Mbps

Expansion card slots

Power connector
LED indicator

3.5" front accessible HDD storage option, lockable

Slim ODD (optional)

Power Button

Universal Audio port

USB 3.2 Gen1 (5GB/s) Port

USB 3.2 Gen1 (5GB/s) Port with PowerShare

USB 3.2 Gen2 (10Gb/s) Type C Port

USB 3.2 Gen2x2 (20Gb/s) Type C with PowerShare

SD Card Reader

Breathable hexagon panel.

HDMI 2.0/ DisplayPort 1.4/ VGA/ USB Type-C with DisplayPort Alt mode (optional)

2.5 GbE
RJ45 port (optional)

Industry's most secure commercial PC[1]
Only Dell offers off-host BIOS verification and Indicators of Attack to reduce exposure to future threats.

Secured Component Verification, offered only by Dell, helps ensure PCs are secure from factory to first boot.

Dell and Intel reduce the attack surface. The latest Intel vPro-based PCs provide an estimated 70% attack surface reduction.[2]

Sustainability
This workstation has achieved the EPEAT Gold Climate+ designation, meeting industry best practices for decarbonization.

▶ Click here to see the 3D Product Viewer

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FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 3680 Tower
PROCESSOR[1]	14th Gen Intel® Core™ i9-14900K vPro® (36 MB cache, 24 cores, 32 threads, 3.2 GHz to 6.0 GHz Turbo, 125W) 14th Gen Intel® Core™ i9-14900 vPro® (36 MB cache, 24 cores, 32 threads, 2.0 GHz to 5.8 GHz Turbo, 65W) 14th Gen Intel® Core™ i7-14700K vPro® (33 MB cache, 20 cores, 28 threads, 3.4 GHz to 5.6 GHz Turbo, 125W) 14th Gen Intel® Core™ i7-14700 vPro® (33 MB cache, 20 cores, 28 threads, 2.1 GHz to 5.4 GHz Turbo, 65W) 14th Gen Intel® Core™ i5-14600K vPro® (24 MB cache, 14 cores, 20 threads, 3.5 GHz to 5.3 GHz Turbo, 125W) 14th Gen Intel® Core™ i5-14600 vPro® (24 MB cache, 14 cores, 20 threads, 2.7 GHz to 5.2 GHz Turbo, 65W) 14th Gen Intel® Core™ i5-14500 vPro® (24 MB cache, 14 cores, 20 threads, 2.6 GHz to 5.0 GHz Turbo, 65W) 14th Gen Intel® Core™ i3-14100 (12 MB cache, 4 cores, 8 threads, 3.5 GHz to 4.7 GHz Turbo, 60W) Processor Cooling Options: 1. Standard CPU Air Cooler (for up to 65W CPUs) 2. Premium CPU Air Cooler with Air Shroud (for all CPUs) 3. Enhanced Performance for 65W CPUs requires Premium CPU Air Cooler with Air Shroud
OPERATING SYSTEM[1]	Windows 11 Home Windows 11 Pro Windows 11 Pro National Education Ubuntu® Linux® 22.04 LTS
MEMORY[1,2,3]	4 DIMM Slots: Up to 128 GB or up to 4400 MT/s ECC and Non-ECC DDR5 Maximum speed: 4400 MT/s Maximum capacity: 128 GB 8 GB: 1 x 8 GB, DDR5, 4400 MT/s, Non-ECC 16 GB: 2 x 8 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 16 GB: 1 x 16 GB, DDR5, 4400 MT/s, Non-ECC 32 GB: 2 x 16 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 32 GB: 4 x 8 GB, DDR5, 4000 MT/s, Non-ECC, dual-channel 64 GB: 2 x 32 GB, DDR5, 4400 MT/s, Non-ECC, dual-channel 64 GB: 4 x 16 GB, DDR5, 4000 MT/s, Non-ECC, dual-channel 128 GB: 4 x 32 GB, DDR5, 3600 MT/s, Non-ECC, dual-channel 16 GB: 1 x 16 GB, DDR5, 4400 MT/s, ECC 32 GB: 2 x 16 GB, DDR5, 4400 MT/s, ECC, dual-channel 64 GB: 2 x 32 GB, DDR5, 4400 MT/s, ECC, dual-channel 64 GB: 4 x 16 GB, DDR5, 4000 MT/s, ECC, dual-channel 128 GB: 4 x 32 GB, DDR5, 3600 MT/s, ECC, dual-channel Note: Actual memory speed depends on the memory configuration. Maximum memory speed varies by the following configuration on each channel. If the 2 DIMM configuration is not symmetrical, the maximum speed may drop. 4400 MT/s: 1 DIMM-1R/2R 4000 MT/s: 2 DIMM-1R 3600 MT/s: 2 DIMM-2R
PRIMARY HARD DISK DRIVE[1,5]	Support for up to (3) M.2 2280 PCIe NVMe SSD on motherboard and up to (3) 3.5-inch SATA HDDs Front accessible 3.5-inch SATA HDD (with lockable door and key) available with specific storage configurations Support for Intel® Ready Mode™ technology Support for up to (1) additional PCIe SSD on Dell Precision Ultra-Speed Duo drive with active cooling RAID 0/1/5 available 1 TB, 7200 RPM, 3.5-inch, SATA, HDD 2 TB, 7200 RPM, 3.5-inch, SATA, HDD 4 TB, 5400 RPM, 3.5-inch, SATA, HDD 4 TB, 7200 RPM, 3.5-inch, SATA, Enterprise HDD Customer Kit Only 8 TB, 7200 RPM, 3.5-inch, SATA, Enterprise HDD Customer Kit Only 256 GB, M.2 2230, Gen 4 PCIe NVMe, SSD, Class 35 512 GB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 1 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 2 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 4 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Class 40 512 GB, M.2 2280, Gen 4 PCIe NVMe, SSD, Self-Encrypting 1 TB, M.2 2280, Gen 4 PCIe NVMe, SSD, Self-Encrypting
VIDEO CARD	Intel® UHD Graphics 730 supported for 14th Gen Intel® Core™ i3-14100 processor Intel® UHD Graphics 770 supported for remaining processors NVIDIA® RTX™ 6000 Ada Generation, 48 GB GDDR6 NVIDIA® RTX™ 5000 Ada Generation, 32 GB GDDR6 NVIDIA® RTX™ 4500 Ada Generation, 24 GB GDDR6 NVIDIA® RTX™ 4000 Ada Generation, 20 GB GDDR6 NVIDIA® RTX™ 2000 Ada Generation, 16GB GDDR6 NVIDIA® T1000, 8 GB GDDR6 NVIDIA® T1000, 4 GB GDDR6 NVIDIA® T400, 4 GB GDDR6 AMD Radeon™ Pro W7900, 48 GB GDDR6 AMD Radeon™ Pro W7600, 8 GB GDDR6 AMD Radeon™ Pro W7500, 8 GB GDDR6 AMD Radeon™ Pro W6400, 4 GB GDDR6 AMD Radeon™ Pro W6300, 2 GB GDDR6 Note: One PCI Express x16 Gen5 slot supporting graphics cards up to 450 W (Total power available for Discrete Graphics cards) Some cards are available in Dual configurations
CASE COLOR	Dell Standard Black

300W Power Supply chassis can only support the Standard CPU Air Cooler

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MODEL NUMBER	Precision 3680 Tower
PRODUCTIVITY SW[1]	Microsoft Office 30-day Trial Microsoft Office Home and Business 2021 Microsoft Office Professional 2021 Dell Optimizer for Precision Premier Color Dell Support Assist (Exaclibur) DDRE (Dell Developed Recovery Environment) Intel WiFi Direct Dell Support Center Teradici Soft Host (Cloud) and Client Validation (CAS+)
SECURITY SW	McAfee® Small Business Security 30-day Trial McAfee® Small Business Security 12-month Subscription McAfee® Small Business Security 36-month Subscription Security software per software functional plan/cycle list Dell Data Protection | Personal Edition (DDP | E PE) or Dell Encryption Personal (Future Name) Dell Data Protection | Enterprise Edition (DDP | E EE) or Dell Encryption Enterprise (Future Name) Dell Data Protection | External Media Edition (DDP | E EME) or Dell Encryption External Media (Future Name) Data Leakage Protection (DLP) or Dell Data Guardian (new name) Dell Data Protection | Bitlocker Manager (DDP | BLM) VMWare Airwatch Dell Data Protection | Endpoint Security Suite or Dell Endpoint Security Suite Pro Dell Data Protection | Endpoint Security Suite Enterprise or Dell Endpoint Security Suite Enterprise Mozy (Cloud Backup) Dell Threat Defense RSA SecureID RSA NetWitness Endpoint Absolute Data and Device Security D-Pedigree (Secure Supply Chain Functionality) Microsoft Windows Bitlocker Manager Support for Encryption SED HDD's (Opal FIPS and non FIPS, SATA, PCIe) Support eDRIVE Storage including RAID Support UEFI-Preboot Authentication (PBA) solution for Windows 10 Local HDD data wipe via BIOS ("Secure Erase") BIOS Administrative Password BIOS Password BIOS HDD password option (default off) Windows 10 Device Guard and Credential Guard BIOS Data Port On/Off - Data Port disablement Intel Secure Boot (TXT + TPM) - Launch control policy Intel's Identity Protection (IPT) Intel Guard Technologies & Secure Key Secure update of pre-boot password(s) via remote BIOS update
WARRANTY[8,9]	1Y Basic Hardware Warranty Service with Onsite Service after Remote Diagnosis 2Y Basic Warranty Extension 3Y Basic Warranty Extension 4Y Basic Warranty Extension 5Y Basic Warranty Extension 1Y ProSupport with Next Business Day Onsite service 2Y ProSupport with Next Business Day Onsite service 3Y ProSupport with Next Business Day Onsite service 4Y ProSupport with Next Business Day Onsite service 5Y ProSupport with Next Business Day Onsite service 1Y ProSupport Plus for Client with Next Business Day Onsite service 2Y ProSupport Plus for Client with Next Business Day Onsite service 3Y ProSupport Plus for Client with Next Business Day Onsite service 4Y ProSupport Plus for Client with Next Business Day Onsite service 5Y ProSupport Plus for Client with Next Business Day Onsite service
ACCIDENTAL DAMAGE SERVICES	1-year Accidental Damage Service 2-year Accidental Damage Service 3-year Accidental Damage Service 4-year Accidental Damage Service 5-year Accidental Damage Service
KEYBOARD[1]	N/A
PORTS	Front: USB 3.2 Gen 1 (5 Gbps) port USB 3.2 Gen 1 (5 Gbps) port with PowerShare USB 3.2 Gen 2 (10 Gbps) Type-C® port USB 3.2 Gen 2x2 (20 Gbps) Type-C® port with PowerShare Universal Audio port Rear: (2) DisplayPort 1.4a HBR2 ports (2) USB 2.0 (480 Mbps) ports with SmartPower RJ45 (1 GbE) Ethernet port (2) USB 3.2 Gen 2 (10 Gbps) ports (2) USB 3.2 Gen 2 (10 Gbps) Type-C® ports Audio line-out Optional Port (VGA, HDMI 2.0, DP++ 1.4a HB3, USB 3.2 Gen 2 (10 Gbps) Type-C® with DP-Alt mode) RJ45 (2.5 GbE) Ethernet port (optional)
OPTICAL DRIVE OPTIONS	8x DVD-ROM, 9.5 mm 8x DVD+/-RW, 9.5 mm Integrated Smart Card Reader with Contact and Contactless Support (CAC/PIV)

FEATURE	TECHNICAL SPECIFICATION
MODEL NUMBER	Precision 3680 Tower
SLOTS	Front: SD-card slot Rear: Full-height Gen5 PCIe x16 slot Full-height Gen3 PCIe x4 slot Full-height Gen4 PCIe x4 open-ended slot
DIMENSIONS	US Height: 14.68 in. (372.90 mm) Width: 6.81 in. (173.00 mm) Depth: 16.54 in. (420.20 mm) Weight (minimum): 16.71 lb (7.58kg) Weight (maximum): 35.38 lb (16.05 kg) Rest of the world Height: 372.90 mm (14.68 in.) Width: 173.00 mm (6.81 in.) Depth: 420.20 mm (16.54 in.) Weight (minimum): 7.58kg (16.71 lb) Weight (maximum): 16.05 kg (35.38 lb)
AUDIO N SPEAKERS[1]	Stereo speakers with Realtek ALC3246-CG Audio Controller Internal speakers (optional)
CHASSIS	Performance Tower
WIRELESS	Qualcomm® Wi-Fi 6E WCN6856-DBS, 2x2, 802.11ax, MU-MIMO, Bluetooth® 5.3 wireless card Intel® Wi-Fi 6E AX211, 2x2, 802.11ax, MU-MIMO, Bluetooth® 5.3 wireless card
POWER	300W Platinum internal power supply unit (80PLUS Platinum Certified) 500W Platinum internal power supply unit (80PLUS Platinum Certified) 1000W Platinum internal power supply unit (80PLUS Platinum Certified) Note: 300W Power Supply chassis can only support the Standard CPU Air Cooler
REGULATORY[7,11]	Product Safety, EMC and Environmental Datasheets Dell Regulatory Compliance Home Page Responsible Business Alliance Policy
CHIPSET	Intel® W680
HARDWARE SECURITY	Security-cable slot Padlock loop Lockable Cable Cover (optional) Lockable Bezel and Key for Front Accessible SATA HDD (optional) Chassis intrusion switch Trusted Platform Module TPM 2.0 Intel Integrated TPM
RECOMMENDED ACCESSORIES	Mouse : 3Dconnexion SpaceMouse Wireless - 3DX-700066 Audio and Speakers : Dell Slim Soundbar - SB521A Dell Pro Wireless ANC Headset - WL5024 Display: Dell 27 Monitor - P2723D Keyboards: Dell Pro Wireless Keyboard and Mouse - KM5221W Stands and Mounts: Dell Single Monitor Arm - MSA20 Webcam: Dell UltraSharp Webcam - WB7022 Dell Webcam - WB3023 Security Devices: Precision Tower Cable Cover
SYSTEM MANAGEMENT	Intel vPro® Intel vPro® over wireless Intel Standard Manageability (ISM) No OOB Management / ME Disabled DASH (through AMT and ISM) OOB Diags Error Code Push Dell Command	Integration Suite for SCCM (DCIS) Dell Command	Intel® vPro® Out of Band (DCIV) Dell Command	Monitor (DCM) - Asset Inventory and Alerts Management Configuration Management: support hardware configuration management including: - BIOS Configuration via Dell Command	Configure and Dell Command	PowerShell Provider - AMT Configuration - Dell Command	Monitor configuration features - CIM configuration features
CONFIGURATION SERVICES	Factory image load BIOS customization Hardware customization Asset Tagging and Reporting
ADD-IN CARDS	Serial Port PCIe Card i226 PCIe x1 2.5 GbE NIC Card Thunderbolt 4 PCIe Card Zoom Ultra-speed Card WLAN External Antenna AIC

FEATURE	TECHNICAL SPECIFICATION	DESCRIPTION
MODEL NUMBER[1]	Precision 3680	
HARDWARE & FIRMWARE SECURITY (INCLUDED)	Dell Trusted Device	Generates insights into the security state of a platform, monitoring changes to BIOS attributes, detecting possible tampering of BIOS firmware, and more.
	Dell SafeBIOS	Verify the integrity of the BIOS with tamper detection and secure, off-host BIOS image capture.
	Dell SafeBIOS Indicators of Attack	Scan for behavior-based threats for early detection by enabling telemetry integration with popular third-party security and endpoint management solutions. *Includes Microsoft Intune, Carbon Black Cloud, CrowdStrike, Splunk.*
	Dell SafeBIOS Common Vulnerabilities & Exposures (CVE) Detection	Identify and address known BIOS vulnerabilities and patch devices swiftly. *Available early 2024.*
HARDWARE & FIRMWARE SECURITY (OPTIONAL)	Dell SafeID	"Secure end-user credentials. This unique hardware-based security solution provides a hardened and secure bank for storing and processing user credentials. Dependent on model. Credential security options may include: • Secure interaction with Imprivada for authenticating credentials on multi-user devices • Finger Print Reader in Power Button tied to ControlVault 3 • ControlVault 3 Advanced Authentication with FIPS 140-2 Level 3 Certification • Contacted Smart Card and ControlVault 3 • Contactless Smart Card, NFC, and ControlVault 3 • SED SSD NVMe, SSD and HDD (Opal and non-Opal) per SDL • FIPS 201 Full Scan Finger Print Reader and ControlVault • Trusted Platform Module (TPM) 2.0 discrete FIPS 140-2 certification for TPM"
	Dell Secured Component Verification	Provides assurance that the device and its components remain secure from factory to first boot. On-device and cloud-based options available. Availability varies by region.
	Tamper-evident packaging	Detect tampering with this supply chain assurance offering. Availability varies by region.
	Hard drive wipes	Sanitize the hard drive in accordance with National Institute of Standards and Technology (NIST) guidelines with this supply chain assurance offering. Availability varies by region.
	Dell SafeShutter	Ensure user privacy with webcam shutter.
	Intel ME Verification	Verify the integrity of critical firmware using a secure off-host source. Requires Intel vPro.
	Chassis intrusion switch	Remotely detects hardware tampering and is integrated with Dell SafeBIOS Indicators of Attack.
	Kensington Security Slot™	"Device locking option helps reduce the risk of a data breach. Standard slot that can be paired with a standard security cable lock. Spec varies by model: • Dell Fixed Workstations (Desktops): Kensington Security Slot™ (T-bar) • Dell Laptops: Kensington Security Slot™ (Wedge)"
	Fingerprint reader	Fingerprint reader in Power button tied to ControlVault 3+ secures end-user credentials.
	OPAL drive / Self-encrypting drive (SED)	Hardware-based full disk encryption that protects user data without storing encryption keys in RAM where it can be accessed by malicious parties.
	SPI Flash Tamper Detection Circuit	Detects and prevents tampering with BIOS SPI flash chips on the motherboard.
SOFTWARE SECURITY (OPTIONAL)	Dell SafeGuard & Response: CrowdStrike, Carbon Black, Secureworks	Threat detection and response/remediation
	Dell SafeData: Absolute	Self-healing for applications and networks
	Dell SafeData: Netskope	Cloud and network data protection
	McAfee Business Protection	Simple, automated, all-in-one security made for small businesses