

Printer and MFP security features



The table below shows a list of embedded device security features and availability of those features across HP Enterprise-class¹ printers and MFPs, and competitor devices. This data is provided to support the relative claim of “most secure” printers.

A4 class devices

	HP ³	Canon ⁴	Konica Minolta ⁵	Kyocera ⁶	Lexmark ⁷	Oki Data ⁸	Ricoh ⁹	Xerox ¹⁰
BIOS security validation at boot ²	✓	✓	✓	?	✓	?	✓	?
with self-healing	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Firmware/software code validation at boot ²	✓	✓	✓	✓	✓	?	✓	✓
Run-time memory inspection ²	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘
with self-healing	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Network behavior anomaly detection	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Protect system files/directories	✓	✓	?	?	✓	?	✓	⊘
SIEM integration	✓	✓	⊘	⊘	✓	⊘	⊘	⊘
802.1x network authentication	✓	✓	✓	✓	✓	✓	✓	✓
Access Control lists (ACL)	✓	✓	✓	✓	✓	✓	✓	✓
Active Directory integration	✓	✓	✓	✓	✓	✓	✓	✓
Bluetooth® low energy	✓	✓	✓	⊘	⊘	⊘	⊘	⊘
Configurable CA certificate	✓	✓	✓	✓	✓	✓	✓	✓
Configurable device identity certificate	✓	✓	✓	✓	✓	✓	✓	✓
Digitally signed firmware/software	✓	✓	✓	✓	✓	✓	✓	✓
Disable network ports and protocols	✓	✓	✓	✓	✓	✓	✓	✓
Disable physical ports (USB, parallel, etc.)	✓	✓	✓	✓	✓	✓	✓	✓
Embedded encrypted HDD by default	✓	⊘	✓	⊘	⊘	⊘	⊘	✓
Embedded FIPS 140	✓	⊘	⊘	⊘	⊘	⊘	⊘	✓
Embedded NFC hardware	✓	⊘	✓	⊘	⊘	⊘	⊘	✓
Embedded secure file erase	✓	✓	✓	⊘	⊘	⊘	⊘	✓
Embedded secure storage erase	✓	✓	✓	⊘	⊘	⊘	✓	✓
Embedded Wi-Fi Direct®	✓	✓	✓	⊘	✓	✓	⊘	⊘
Encrypted and hashed PINS and passwords	✓	✓	✓	✓	✓	✓	✓	✓
Encrypted email	✓	✓	✓	✓	✓	✓	✓	✓
Encrypted print	✓	✓	✓	✓	✓	✓	✓	✓
Fax lock PIN	✓	✓	✓	✓	✓	✓	✓	✓
Hardware Integration Pocket for security solutions	✓	✓	⊘	✓	✓	✓	✓	✓
IPP encrypted printing	✓	✓	✓	✓	✓	✓	✓	✓
IPsec	✓	✓	✓	✓	✓	✓	✓	✓
LDAP integration	✓	✓	✓	✓	✓	✓	✓	✓
Multiple user PINs (on the device)	✓	✓	✓	✓	✓	✓	✓	✓
Novell integration	✓	✓	✓	✓	✓	✓	✓	✓
Password complexity as default	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Role-based access to control panel features	✓	✓	✓	✓	✓	⊘	✓	✓
Secure SMTP server (HTTPS)	✓	✓	✓	✓	✓	⊘	✓	✓
Security event logging	✓	✓	✓	✓	✓	✓	✓	✓
Single sign-on (on device)	✓	✓	✓	⊘	✓	⊘	✓	✓
SNMPv3	✓	✓	✓	✓	✓	✓	✓	✓
TLS 1.1/1.2	✓	⊘	✓	✓	✓	✓	✓	✓
Trusted Platform Module (TPM)	✓	✓	✓	⊘	⊘	⊘	✓	✓
Turn on/off Remote Firmware Upgrade (RFU) on device	✓	⊘	⊘	⊘	⊘	✓	⊘	✓
TOTALS	41	32	32	24	29	23	29	32

A3 class devices

	HP ³	Canon ¹¹	Konica Minolta ¹²	Kyocera ¹³	Lexmark ¹⁴	Ricoh ¹⁵	Sharp ¹⁶	Toshiba ¹⁷	Xerox ¹⁸
BIOS security validation at boot ²	✓	✓	✓	?	✓	✓	?	?	?
with self-healing	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Firmware/software code validation at boot ²	✓	✓	✓	✓	✓	✓	✓	?	✓
Run-time memory inspection ²	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
with self-healing	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Network behavior anomaly detection	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Protect system files/directory	✓	✓	?	?	✓	✓	?	?	✓
SIEM integration	✓	✓	⊘	⊘	✓	⊘	⊘	⊘	⊘
802.1x network authentication	✓	✓	✓	✓	✓	✓	✓	✓	✓
Access Control lists (ACL)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Active Directory integration	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bluetooth® low energy	✓	✓	✓	⊘	⊘	⊘	⊘	⊘	⊘
Configurable CA certificate	✓	✓	✓	✓	✓	✓	⊘	⊘	✓
Configurable device identity certificate	✓	✓	✓	✓	✓	✓	✓	✓	✓
Digitally signed firmware/software	✓	✓	✓	✓	✓	✓	✓	✓	✓
Disable network ports and protocols	✓	✓	✓	✓	✓	✓	✓	✓	✓
Disable physical ports (USB, parallel, etc.)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Embedded encrypted HDD standard	✓	✓	✓	⊘	✓	⊘	⊘	✓	✓
Embedded FIPS 140	✓	✓	⊘	⊘	⊘	⊘	⊘	✓	✓
Embedded NFC hardware	✓	✓	✓	⊘	⊘	⊘	⊘	⊘	✓
Embedded secure file erase	✓	✓	✓	⊘	✓	✓	✓	✓	✓
Embedded secure storage erase	✓	✓	✓	⊘	✓	✓	✓	✓	✓
Embedded Wi-Fi Direct®	✓	✓	✓	⊘	✓	⊘	✓	✓	⊘
Encrypted and hashed PINS and passwords	✓	✓	✓	✓	✓	✓	✓	✓	✓
Encrypted email	✓	✓	✓	✓	✓	✓	✓	✓	✓
Encrypted print	✓	✓	✓	✓	✓	✓	✓	✓	✓
Fax lock PIN	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hardware Integration Pocket for security solutions	✓	✓	⊘	✓	✓	✓	⊘	⊘	✓
IPP encrypted printing	✓	✓	✓	✓	✓	✓	✓	✓	✓
IPsec	✓	✓	✓	✓	✓	✓	✓	✓	✓
LDAP integration	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multiple user PINs (on the device)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Novell integration	✓	✓	✓	✓	✓	✓	✓	✓	✓
Password complexity as default	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘	⊘
Role-based access to control panel features	✓	✓	✓	✓	✓	✓	✓	✓	✓
Secure SMTP server (HTTPS)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Security event logging	✓	✓	✓	✓	✓	✓	✓	✓	✓
Single sign-on (on device)	✓	✓	✓	⊘	✓	✓	⊘	⊘	✓
SNMPv3	✓	✓	✓	✓	✓	✓	✓	✓	✓
TLS 1.1/1.2	✓	⊘	✓	✓	✓	✓	✓	✓	✓
Trusted Platform Module (TPM)	✓	✓	✓	⊘	⊘	✓	⊘	⊘	⊘
Turn on/off Remote Firmware Upgrade (RFU) on device	✓	⊘	⊘	⊘	⊘	⊘	⊘	⊘	✓
TOTALS	41	34	32	24	31	29	25	25	32

Methodology

Analysis done by HP and is based on published information from websites, data sheets, and brochures of leading competitive brands and representative in-class devices. Information provided is to the best of our knowledge.

Notes

- ¹ HP Enterprise-class printers and MFPs use HP FutureSmart firmware and HP claims of “most” secure are specific to FutureSmart devices.
- ² A FutureSmart service pack update may be required to activate security features. Some features will be made available as an HP FutureSmart service pack update on select existing Enterprise printer models. For a list of compatible products, please see our “Embedded security features compatibility matrix” at <http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA6-1178ENW>.
- ³ HP Enterprise and HP Managed devices with HP FutureSmart firmware 4.5 or above.

A4 source data

Competitors listed below websites, data sheet, spec sheets, brochures, white papers, catalogues, and other public information as of April 2021.

<p>4</p> <p><u>Canon</u></p> <p><u>imageRUNNER ADVANCE DX 527i</u></p> <p><u>imageRUNNER ADVANCE DX 717i</u></p> <p><u>imageRUNNER ADVANCE DX C357i</u></p> <p><u>imageRUNNER ADVANCE DX C477iZ</u></p>	<p>5</p> <p><u>Konica Minolta</u></p> <p><u>bizhub 4750i</u></p> <p><u>bizhub 5020i</u></p> <p><u>bizhub C3320i</u></p> <p><u>bizhub C4050i</u></p>	<p>6</p> <p><u>Kyocera</u></p> <p><u>TASKalfa 508ci</u></p> <p><u>ECOSYS M3860idnf</u></p> <p><u>ECOSYS P3260dn</u></p> <p><u>ECOSYS P3155dn</u></p>	<p>7</p> <p><u>Lexmark</u></p> <p><u>CX625</u></p> <p><u>CX860</u></p> <p><u>MX822</u></p> <p><u>XC8163</u></p>
<p>8</p> <p><u>Oki Data</u></p> <p><u>C650dn</u></p> <p><u>C824</u></p> <p><u>MC780</u></p> <p><u>MC853</u></p> <p><u>MC873</u></p>	<p>9</p> <p><u>Ricoh</u></p> <p><u>IM C530F</u></p> <p><u>IM 600F</u></p> <p><u>MP C501</u></p> <p><u>P 801</u></p>	<p>10</p> <p><u>Xerox</u></p> <p><u>VersaLink B600</u></p> <p><u>VersaLink B615</u></p> <p><u>VersaLink C600</u></p> <p><u>VersaLink C605</u></p>	

A3 source data

Competitors listed below websites, data sheet, spec sheets, brochures, white papers, catalogues, and other public information as of April 2021.

<p>11</p> <p><u>Canon</u></p> <p><u>imageRUNNER ADVANCE DX 4751i</u></p> <p><u>imageRUNNER ADVANCE DX 6765i</u></p> <p><u>imageRUNNER ADVANCE DX C3730i</u></p> <p><u>imageRUNNER ADVANCE DX C5870i</u></p> <p><u>imageRUNNER ADVANCE DX 6000i</u></p>	<p>12</p> <p><u>Konica Minolta</u></p> <p><u>bizhub C287i</u></p> <p><u>bizhub 360i</u></p> <p><u>bizhub C360i</u></p> <p><u>bizhub 650i</u></p> <p><u>bizhub C750i</u></p>	<p>13</p> <p><u>Kyocera</u></p> <p><u>ECOSYS P4140dn</u></p> <p><u>TASKalfa 2554ci</u></p> <p><u>TASKalfa 3554ci</u></p> <p><u>TASKalfa 6003i</u></p> <p><u>TASKalfa 6053ci</u></p>	<p>14</p> <p><u>Lexmark</u></p> <p><u>XC9225</u></p> <p><u>XC9255</u></p> <p><u>XC9265</u></p> <p><u>XM9155</u></p> <p><u>XM9165</u></p>
<p>15</p> <p><u>Rioch</u></p> <p><u>IM C2500</u></p> <p><u>IM C6000</u></p> <p><u>MP 2555</u></p> <p><u>MP 305SPF</u></p> <p><u>IM 7000</u></p>	<p>16</p> <p><u>Sharp</u></p> <p><u>MX-2651</u></p> <p><u>MX-6051</u></p> <p><u>MX-7081</u></p> <p><u>MX-M2651</u></p> <p><u>MX-M6071</u></p>	<p>17</p> <p><u>Toshiba</u></p> <p><u>e-STUDIO02010AC</u></p> <p><u>e-STUDIO02822AF</u></p> <p><u>e-STUDIO05015AC</u></p> <p><u>e-STUDIO05018A</u></p> <p><u>e-STUDIO05516AC</u></p>	<p>18</p> <p><u>Xerox</u></p> <p><u>AltaLink B8170</u></p> <p><u>AltaLink C8130</u></p> <p><u>AltaLink C8155</u></p> <p><u>VersaLink C8000W</u></p>



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