Lexmark Security Advisory:

Revision: 1.0
Last update: 11 January 2022
Public Release Date: 18 January 2022

Summary

Various Lexmark devices have a directory traversal vulnerability that can be leveraged to overwrite internal configuration files.

References

CVE: CVE-2021-44737

CWE: CWE-22
ZDI: ZDI-CAN-15820

Details

A directory traversal vulnerability has been identified in the PJL command processor in many Lexmark devices. This vulnerability can allow an attacker to overwrite internal configuration files.

CVSSv3 Base Score   8.6   (AV:N/AC:L/PR:N/UI:N/S:C/C:N/I:H/A:N)
Impact Subscore: 4.0
Exploitability Subscore: 3.9

CVSSv3 scores are calculated in accordance with CVSS version 3.1   (https://www.first.org/cvss/user-guide)

Impact

Successful exploitation of this vulnerability can lead to unexpected behavior from the affected device.

Affected Products

To determine a devices firmware level, select the "Settings"->"Reports"->"Menu Setting Page" menu item from the operator panel. If the firmware level listed under "Device Information" matches any level under "Affected Releases", then upgrade to a "Fixed Release".

Lexmark Models	Affected Releases	Fixed Releases
B2236	MSLSG.076.293 and previous	MSLSG.076.294 and later
MB2236	MXLSG.076.293 and previous	MXLSG.076.294 and later
MS331, MS431	MSLBD.076.293 and previous	MSLBD.076.294 and later
M1342	MSLBD.076.293 and previous	MSLBD.076.294 and later
B3442, B3340	MSLBD.076.293 and previous	MSLBD.076.294 and later
XM1342	MSLBD.076.293 and previous	MSLBD.076.294 and later
MX331, MX431	MXLBD.076.293 and previous	MXLBD.076.294 and later
MB3442	MXLBD.076.293 and previous	MXLBD.076.294 and later
MS321, MS421, MS521, MS621	MSNGM.076.293 and previous	MSNGM.076.294 and later
M1242, M1246	MSNGM.076.293 and previous	MSNGM.076.294 and later
B2338, B2442, B2546, B2650	MSNGM.076.293 and previous	MSNGM.076.294 and later

MS622	MSTGM.076.293 and previous	MSTGM.076.294 and later
M3250	MSTGM.076.293 and previous	MSTGM.076.294 and later
MX321	MXNGM.076.293 and previous	MXNGM.076.294 and later
MB2338	MXNGM.076.293 and previous	MXNGM.076.294 and later
MX421, MX521, MX522, MX622	MXTGM.076.293 and previous	MXTGM.076.294 and later
XM1242, XM1246, XM3250	MXTGM.076.293 and previous	MXTGM.076.294 and later
MB2442. MB2546, MB2650	MXTGM.076.293 and previous	MXTGM.076.294 and later
MS725, MS821, MS823, MS825	MSNGW.076.293 and previous	MSNGW.076.294 and later
B2865	MSNGW.076.293 and previous	MSNGW.076.294 and later
MS822, MS826	MSTGW.076.293 and previous	MSTGW.076.294 and later
M5255, M5270	MSTGW.076.293 and previous	MSTGW.076.294 and later
MX721, MX722, MX822, MX826	MXTGW.076.293 and previous	MXTGW.076.294 and later
XM5365, XM7355, XM7370	MXTGW.076.293 and previous	MXTGW.076.294 and later
MB2770	MXTGW.076.293 and previous	MXTGW.076.294 and later
C3426	CSLBN.076.293 and previous	CSLBN.076.294 and later
CS431, CS439	CSLBN.076.293 and previous	CSLBN.076.294 and later
CS331	CSLBL.076.293 and previous	CSLBL.076.294 and later
C3224, C3326	CSLBL.076.293 and previous	CSLBL.076.294 and later
C2326	CSLBN.076.293 and previous	CSLBN.076.294 and later
MC3426	CXLBN.076.293 and previous	CXLBN.076.294 and later
CX431	CXLBN.076.293 and previous	CXLBN.076.294 and later
XC2326	CXLBN.076.293 and previous	CXLBN.076.294 and later
MC3426	CXLBN.076.293 and previous	CXLBN.076.294 and later
MC3224, MC3326	CXLBL.076.293 and previous	CXLBL.076.294 and later
CX331	CXLBL.076.293 and previous	CXLBL.076.294 and later
CS622	CSTZJ.076.293 and previous	CSTZJ.076.294 and later
C2240	CSTZJ.076.293 and previous	CSTZJ.076.294 and later
CS421, CS521	CSNZJ.076.293 and previous	CSNZJ.076.294 and later
C2325, C2425, C2535	CSNZJ.076.293 and previous	CSNZJ.076.294 and later
CX522, CX622, CX625	CXTZJ.076.293 and previous	CXTZJ.076.294 and later
XC2235, XC4240	CXTZJ.076.293 and previous	CXTZJ.076.294 and later
MC2535, MC2640	CXTZJ.076.293 and previous	CXTZJ.076.294 and later
CX421	CXNZJ.076.293 and previous	CXNZJ.076.294 and later
MC2325, MC2425	CXNZJ.076.293 and previous	CXNZJ.076.294 and later
CX820, CX825, CS827, CX860	CXTPP.076.293 and previous	CXTPP.076.294 and later
XC6152, XC6153, XC8155, XC8160, XC8163	CXTPP.076.293 and previous	CXTPP.076.294 and later
CS820, CS827	CSTPP.076.293 and previous	CSTPP.076.294 and later
C6160	CSTPP.076.293 and previous	CSTPP.076.294 and later
CS720, CS725, CS727, CS728	CSTAT.076.293 and previous	CSTAT.076.294 and later
C4150	CSTAT.076.293 and previous	CSTAT.076.294 and later
CX725, CX727	CXTAT.076.293 and previous	CXTAT.076.294 and later
XC4140, XC4143, XC4150, XC4153	CXTAT.076.293 and previous	CXTAT.076.294 and later
CS921, CS923, CS927	CSTMH.076.293 and previous	CSTMH.076.294 and later
C9235	CSTMH.076.293 and previous	CSTMH.076.294 and later
CX920, CX921, CX922, CX923, CX924	CXTMH.076.293 and previous	CXTMH.076.294 and later
XC9225, XC9235, XC9245, XC9255, XC9265	CXTMH.076.293 and previous	CXTMH.076.294 and later

MS310, MS312, MS317, MS410	LW80.PRL.P209 and previous	LW80.PRL.P210 and later
M1140	LW80.PRL.P209 and previous	LW80.PRL.P210 and later
MS315, MS415, MS417	LW80.TL2.P209 and previous	LW80.TL2.P210 and later
MS510, MS517, MS610dn, MS617	LW80.PR2.P209 and previous	LW80.PR2.P210 and later
M1140+, M1145, M3150dn	LW80.PR2.P209 and previous	LW80.PR2.P210 and later
MS610de, M3150de	LW80.PR4.P209 and previous	LW80.PR4.P210 and later
MX310, MX317	LW80.SB2.P209 and previous	LW80.SB2.P210 and later
XM1135	LW80.SB2.P209 and previous	LW80.SB2.P210 and later
MX410, MX417, MX510, MX511, MX517	LW80.SB4.P209 and previous	LW80.SB4.P210 and later
XM1140, XM1145	LW80.SB4.P209 and previous	LW80.SB4.P210 and later
MX610, MX611, MX617	LW80.SB7.P209 and previous	LW80.SB7.P210 and later
XM3150	LW80.SB7.P209 and previous	LW80.SB7.P210 and later
MS710, MS711, MS810dn, MS811, MS812dn, MS817, MS818	LW80.DN2.P209 and previous	LW80.DN2.P210 and later
M5163dn	LW80.DN2.P209 and previous	LW80.DN2.P210 and later
MS810de	LW80.DN4.P209 and previous	LW80.DN4.P210 and later
M5155, M5163de	LW80.DN4.P209 and previous	LW80.DN4.P210 and later
MS812de	LW80.DN7.P209 and previous	LW80.DN7.P210 and later
M5170	LW80.DN7.P209 and previous	LW80.DN7.P210 and later
MX710, MX711, MX717, MX718, MX810, MX811, MX812	LW80.TU.P209 and previous	LW80.TU.P210 and later
XM5163, XM5170, XM5263, XM5270, XM7155, XM7163, XM7170, XM7263, XM7270	LW80.TU.P209 and previous	LW80.TU.P210 and later
MS911	LW80.SA.P209 and previous	LW80.SA.P210 and later
MX910, MX911, MX912	LW80.MG.P209 and previous	LW80.MG.P210 and later
XM9145, XM9155, XM9165	LW80.MG.P209 and previous	LW80.MG.P210 and later
MX6500e	LW80.JD.P209 and previous	LW80.JD.P210 and later
CS310, CS317	LW80.VYL.P209 and previous	LW80.VYL.P210 and later
CS410, CS417	LW80.VY2.P209 and previous	LW80.VY2.P210 and later
CS510, CS517	LW80.VY4.P209 and previous	LW80.VY4.P210 and later
C2132	LW80.VY4.P209 and previous	LW80.VY4.P210 and later
CX310, CX317	LW80.GM2.P209 and previous	LW80.GM2.P210 and later
CX410, CX417	LW80.GM4.P209 and previous	LW80.GM4.P210 and later
XC2130	LW80.GM4.P209 and previous	LW80.GM4.P210 and later
CX510, CX517	LW80.GM7.P209 and previous	LW80.GM7.P210 and later
XC2132	LW80.GM7.P209 and previous	LW80.GM7.P210 and later
C746	LHS60.CM2.P752 and previous	LHS60.CM2.P753 and later
C748, CS748	LHS60.CM4.P752 and previous	LHS60.CM4.P753 and later
C792, CS796	LHS60.HC.P752 and previous	LHS60.HC.P753 and later
C925	LHS60.HV.P752 and previous	LHS60.HV.P753 and later
C950	LHS60.TP.P752 and previous	LHS60.TP.P753 and later
X548, XS548	LHS60.VK.P752 and previous	LHS60.VK.P753 and later
X746, X748, XS748	LHS60.NY.P752 and previous	LHS60.NY.P753 and later
X792, XS795, XS796, XS798	LHS60.MR.P752 and previous	LHS60.MR.P753 and later
X925, XS925	LHS60.HK.P752 and previous	LHS60.HK.P753 and later
X950, X952, X954, XS950,	LHS60.TQ.P752 and previous	LHS60.TQ.P753 and later

XS955		
6500e	LHS60.JR.P752 and previous	LHS60.JR.P753 and later
C734	LR.SK.P834 and previous	LR.SK.P835 and later
C736	LR.SKE.P834 and previous	LR.SKE.P835 and later
E46x	LR.LBH.P834 and previous	LR.LBH.P835 and later
T65x	LR.JP.P834 and previous	LR.JP.P835 and later
X46x	LR.BS.P834 and previous	LR.BS.P835 and later
X65x	LR.MN.P834 and previous	LR.MN.P835 and later
X73x	LR.FL.P834 and previous	LR.FL.P835 and later
W850	LP.JB.P833 and previous	LP.JB.P834 and later
X86x	LP.SP.P833 and previous	LP.SP.P834 and later

Obtaining Updated Software

To obtain firmware that resolves this issue or if you have special code, please contact Lexmark's Technical Support Center at http://support.lexmark.com to find your local support center.

Workarounds

Lexmark recommends a firmware update if your device has affected firmware.

Exploitation and Public Announcements

Lexmark is not aware of any malicious use against Lexmark products of the vulnerability described in this advisory.

Lexmark would like to thank the following people working with Trend Micro's Zero Day Initiative (ZDI) for bringing this issue to our attention:

> Alex Plaskett of NCC Group EDG
> Cedric Halbronn of NCC Group EDG
> Aaron Adams of NCC Group EDG

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Revision History

Revision	Date	Reason
1.0	11 January 2022	Initial Public Relase