Hewlett Packard Enterprise

HPE iMC 7.3 and Aruba OS-CX Switches Configuration Guide

IMC 7.3 E0710 edition

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Hewlett Packard Enterprise

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Document Information

Version no.	Version date	Changes
1.1	15/09/2021	Published as knowledgebase article for IMC 706P06 release
1.2	04/10/2021	Formatting
1.3	19/11/2021	Solarwinds as SFTP server
1.4	27/04/2022	Update for IMC 706P11 release. 1. Core FTP SFTP server as SFTP server, latest version of Solarwinds is incompatible with IMC’s Windows requirements. 2. Updated list of support CX products, now searchable. 3. Software upgrade now fully functional. Association of switch image filenames to device types is manual. 4. RestAPI configuration test parameters have changed. Saving VLAN and ACL changes to startup configuration is necessary.
1.5	17/05/2022	RestAPI configuration test parameters change. Released for IMC 706P11
1.6	20/06/2022	Released to knowledgebase
1.7	27/07/2022	Released to web
2.0	21/09/2022	Updated device list for 708
2.1	22/11/2022	Internal release for 708
2.2	06/12/2022	Section 4 Note - work round to CX communication timeouts during VLAN and ACL Management.
2.3	19/01/2023	Improved section 6. SFTP file transfer service. Modified section 3. SNMP is now read-write on CX

Version no.	Version date	Changes
2.4	31/01/2023	Section 6. Replaced SFTP server with Solarwinds which supports SHA2
2.5	08/03/2023	Section 2. Updated list of supported Aruba Networks Devices. Section 4. ACL Management not supported on 6xxx devices. VLAN Management partially supported.
2.6	15/05/2023	Section 13. Software files associated with product family
2.7	15/05/2023	Updated list of devices for 708P03 Section 7 - specified Login Type should be SSH. If the default file transfer mode is not SFTP server, add all CX devices to Single Device transfer mode
3.0		Updated list of devices for 710 IMC uses version 10.09 of the CX Rest-API for VLAN management

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1 Summary

This document includes sample configurations for:

- OS CX devices version 10.7.x and above
- IMC 7.3 E0705 P12 and above
- Updated for IMC 7.3 E0708 P03 release

2 Supported Aruba Networks devices

Aruba devices listed in System >Resource Management > Device Definition > Device Models

Exported 211 records.		
Model Name	**sysOID**	**Series**
Aruba 105 Access Point	1.3.6.1.4.1.14823.1.2.34	Aruba 105 Series Access Points
Aruba 120 ABG Access Point	1.3.6.1.4.1.14823.1.2.26	Aruba 120 ABG Series Access Points
Aruba 120 Access Point	1.3.6.1.4.1.14823.1.2.23	Aruba 120 Series Access Points
Aruba 1200 Access Point	1.3.6.1.4.1.14823.1.2.8	Aruba 1200 Series Access Points
Aruba 121 ABG Series Access Point	1.3.6.1.4.1.14823.1.2.27	Aruba 121 ABG Series Access Points
Aruba 121 Access Point	1.3.6.1.4.1.14823.1.2.24	Aruba 121 Series Access Points
Aruba 124 ABG Access Point	1.3.6.1.4.1.14823.1.2.28	Aruba 124 ABG Series Access Points
Aruba 124 Access Point	1.3.6.1.4.1.14823.1.2.21	Aruba 124 Series Access Points
Aruba 125 Access Point	1.3.6.1.4.1.14823.1.2.22	Aruba 125 Series Access Points
Aruba 125 APG Access Point	1.3.6.1.4.1.14823.1.2.29	Aruba 125 APG Series Access Points
Aruba 1250 Access Point	1.3.6.1.4.1.14823.1.2.25	Aruba 1250 Series Access Points
Aruba 134 Access Point	1.3.6.1.4.1.14823.1.2.47	Aruba 134 Series Access Points
Aruba 135 Access Point	1.3.6.1.4.1.14823.1.2.48	Aruba 135 Series Access Points
Aruba 175AC Access Point	1.3.6.1.4.1.14823.1.2.45	Aruba 175AC Series Access Points
Aruba 175DC Access Point	1.3.6.1.4.1.14823.1.2.46	Aruba 175DC Series Access Points
Aruba 175P Access Point	1.3.6.1.4.1.14823.1.2.44	Aruba 175P Series Access Points
Aruba 200	1.3.6.1.4.1.14823.1.1.10	Aruba Networks Switches
ARUBA 200 AP-205	1.3.6.1.4.1.14823.1.2.68	Aruba200
Aruba 2400	1.3.6.1.4.1.14823.1.1.2	Aruba Networks Switches
Aruba 2400-24	1.3.6.1.4.1.14823.1.1.11	Aruba Networks Switches
Aruba 2400-E	1.3.6.1.4.1.14823.1.1.7	Aruba Networks Switches
Aruba 2400-F	1.3.6.1.4.1.14823.1.1.99	Aruba Networks Switches
Aruba 2450	1.3.6.1.4.1.14823.1.1.5	Aruba Networks Switches
Aruba 2930F 48G PoE+ 4SFP 740W Switch	1.3.6.1.4.1.11.2.3.7.11.181.27	HPE Aruba 2930F Switch
Aruba 2930F 48G PoE+ 4SFP+ 740W Switch	1.3.6.1.4.1.11.2.3.7.11.181.26	HPE Aruba 2930F Switch
Aruba 2930F 48G PoE+ 4SFP+ 740W TAA-compliant Switch	1.3.6.1.4.1.11.2.3.7.11.181.282	HPE Aruba 2930F Switch
Aruba 2930F-8G-PoE+-2SFP+-TAA Switch	1.3.6.1.4.1.11.2.3.7.11.181.272	Aruba 2930F Switch Series
Aruba 2930M 24G 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.2	HPE ARUBA 2930M Series

Aruba 2930M 24G PoE+ with 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.4	HPE ARUBA 2930M Series
Aruba 2930M 24SR PoE Class 6 1s Switch	1.3.6.1.4.1.11.2.3.7.11.181.29	HPE ARUBA 2930M Series
Aruba 2930M 40G 8SR PoE Class 6 1s Switch	1.3.6.1.4.1.11.2.3.7.11.181.28	HPE ARUBA 2930M Series
Aruba 2930M 48G PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.5	HPE ARUBA 2930M Series
Aruba 2930M 48G with 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.3	HPE ARUBA 2930M Series
Aruba 2E Access Point	1.3.6.1.4.1.14823.1.2.7	Aruba 2E Series Access Points
Aruba 3200	1.3.6.1.4.1.14823.1.1.13	Aruba Networks Switches
Aruba 3200-8	1.3.6.1.4.1.14823.1.1.14	Aruba Networks Switches
Aruba 3400	1.3.6.1.4.1.14823.1.1.15	Aruba Networks Switches
Aruba 3400-32	1.3.6.1.4.1.14823.1.1.16	Aruba Networks Switches
Aruba 3600	1.3.6.1.4.1.14823.1.1.17	Aruba Networks Switches
Aruba 3600-64	1.3.6.1.4.1.14823.1.1.18	Aruba Networks Switches
Aruba 40 Access Point	1.3.6.1.4.1.14823.1.2.12	Aruba 40 Series Access Points
Aruba 41 Access Point	1.3.6.1.4.1.14823.1.2.13	Aruba 41 Series Access Points
Aruba 50 Access Point	1.3.6.1.4.1.14823.1.2.1	Aruba 50 Series Access Points
Aruba 5000	1.3.6.1.4.1.14823.1.1.1	Aruba Networks Switches
Aruba 52 Access Point	1.3.6.1.4.1.14823.1.2.2	Aruba 52 Series Access Points
Aruba 60 Access Point	1.3.6.1.4.1.14823.1.2.3	Aruba 60 Series Access Points
Aruba 6000	1.3.6.1.4.1.14823.1.1.9999	Aruba Networks Switches
Aruba 6000	1.3.6.1.4.1.14823.1.1.4	Aruba Networks Switches
Aruba 60P Access Point	1.3.6.1.4.1.14823.1.2.38	Aruba 60P Series Access Points
Aruba 620 Controller	1.3.6.1.4.1.14823.1.1.23	Aruba 620 Series controller
Aruba 6200F 24G 4SFP+ Switch	1.3.6.1.4.1.47196.4.1.1.1.300	Aruba 6200 Switch Series
Aruba 6200F 24G Class4 PoE 4SFP+ 370W Switch	1.3.6.1.4.1.47196.4.1.1.1.301	Aruba 6200 Switch Series
Aruba 6200F 48G 4SFP+ Switch	1.3.6.1.4.1.47196.4.1.1.1.302	Aruba 6200 Switch Series
Aruba 6200F 48G Class4 PoE 4SFP+ 370W Switch	1.3.6.1.4.1.47196.4.1.1.1.303	Aruba 6200 Switch Series
Aruba 6200F 48G Class4 PoE 4SFP+ 740W Switch	1.3.6.1.4.1.47196.4.1.1.1.304	Aruba 6200 Switch Series
Aruba 6300F 24G PoE CLS 4 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.108	Aruba 6300 Switch Series
Aruba 6300F 24G/4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.110	Aruba 6300 Switch Series
Aruba 6300F 48G /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.109	Aruba 6300 Switch Series
Aruba 6300F 48G PoE CLS 4 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.107	Aruba 6300 Switch Series
Aruba 6300M 24G /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.106	Aruba 6300 Switch Series
Aruba 6300M 24G PoE CLS 4 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.104	Aruba 6300 Switch Series
Aruba 6300M 24SFP+ 4SFP56	1.3.6.1.4.1.47196.4.1.1.1.100	Aruba 6300 Switch Series
Aruba 6300M 24SR PoE CLS 6 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.102	Aruba 6300 Switch Series
Aruba 6300M 48G /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.105	Aruba 6300 Switch Series

Aruba 6300M 48G 4SFP56	1.3.6.1.4.1.47196.4.1.1.1.111	Aruba 6300 Switch Series
Aruba 6300M 48G PoE CLS 4 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.103	Aruba 6300 Switch Series
Aruba 6300M 48SR PoE CLS 6 /4SFP56 Swch	1.3.6.1.4.1.47196.4.1.1.1.101	Aruba 6300 Switch Series
Aruba 6405 Chassis	1.3.6.1.4.1.47196.4.1.1.1.150	Aruba 6400 Switch Series
Aruba 65 WB Access Point	1.3.6.1.4.1.14823.1.2.35	Aruba 65 WB Series Access Points
Aruba 650 Controller	1.3.6.1.4.1.14823.1.1.19	Aruba 650 Series controller
Aruba 651 Access Point	1.3.6.1.4.1.14823.1.2.36	Aruba 651 Series Access Points
Aruba 651 Controller	1.3.6.1.4.1.14823.1.1.20	Aruba 651 Series controller
Aruba 68 Access Point	1.3.6.1.4.1.14823.1.2.42	Aruba 68 Series Access Points
Aruba 68P Access Point	1.3.6.1.4.1.14823.1.2.43	Aruba 68P Series Access Points
Aruba 7005	1.3.6.1.4.1.14823.1.1.39	Aruba 7000 Series Cloud Services Controller
Aruba 7008 Controller	1.3.6.1.4.1.14823.1.1.48	Aruba Networks
Aruba 7010 Controller	1.3.6.1.4.1.14823.1.1.40	Aruba 7000 Series Cloud Services Controller
Aruba 7024 Controller	1.3.6.1.4.1.14823.1.1.43	Aruba 7000 Series Cloud Services Controller
Aruba 7030 Controller	1.3.6.1.4.1.14823.1.1.41	Aruba 7000 Series Cloud Services Controller
Aruba 7205 Controller	1.3.6.1.4.1.14823.1.1.42	Aruba 7200 Series Mobility Controller
Aruba 7210	1.3.6.1.4.1.14823.1.1.32	Aruba 7200 Series Mobility Controller
Aruba 7220 Controller	1.3.6.1.4.1.14823.1.1.33	Aruba 7200 Series Mobility Controller
Aruba 7240 Controller	1.3.6.1.4.1.14823.1.1.34	Aruba 7200 Series Mobility Controller
Aruba 7240 Controller	1.3.6.1.4.1.14823.1.1.47	Aruba Networks
Aruba 7280 Controller	1.3.6.1.4.1.14823.1.1.51	Aruba Networks
Aruba 800	1.3.6.1.4.1.14823.1.1.3	Aruba Networks Switches
Aruba 800-4	1.3.6.1.4.1.14823.1.1.9	Aruba Networks Switches
Aruba 800-E	1.3.6.1.4.1.14823.1.1.8	Aruba Networks Switches
Aruba 80M Access Point	1.3.6.1.4.1.14823.1.2.10	Aruba 80M Series Access Points
Aruba 80MB Access Point	1.3.6.1.4.1.14823.1.2.18	Aruba 80MB Series Access Points
Aruba 80S Access Point	1.3.6.1.4.1.14823.1.2.9	Aruba 80S Series Access Points
Aruba 80SB Access Point	1.3.6.1.4.1.14823.1.2.19	Aruba 80SB Series Access Points
Aruba 8320 32 40G x 472 5F 2PSU Bdl	1.3.6.1.4.1.47196.4.1.1.1.3	Aruba 8320 Switch Series
Aruba 8320 48 10/6 40 X472 5F 2PS Bndl	1.3.6.1.4.1.47196.4.1.1.1.2	Aruba 8320 Switch Series
Aruba 8320 48 T/6 40 X472 5 2 Bdl	1.3.6.1.4.1.47196.4.1.1.1.5	Aruba 8320 Switch Series
Aruba 8325-32C 32p 100G Switch	1.3.6.1.4.1.47196.4.1.1.1.70	Aruba 8325 Switch Series
Aruba 8325-48Y8C 48p 25G 8p 100G Switch	1.3.6.1.4.1.47196.4.1.1.1.50	Aruba 8325 Switch Series
Aruba 85 Access Point	1.3.6.1.4.1.14823.1.2.20	Aruba 85 Series Access Points
Aruba 850	1.3.6.1.4.1.14823.1.1.6	Aruba Networks Switches
Aruba 92 Access Point	1.3.6.1.4.1.14823.1.2.40	Aruba 92 Series Access Points
Aruba 93 Access Point	1.3.6.1.4.1.14823.1.2.41	Aruba 93 Series Access Points
Aruba AP61	1.3.6.1.4.1.14823.1.2.4	Aruba Networks Switches
Aruba AP65	1.3.6.1.4.1.14823.1.2.14	Aruba Networks Switches
Aruba AP70	1.3.6.1.4.1.14823.1.2.5	Aruba Networks
Aruba Duo Access Point	1.3.6.1.4.1.14823.1.2.17	Aruba Duo Series Access Points
Aruba DuoWj Access Point	1.3.6.1.4.1.14823.1.2.16	Aruba Duowj Series Access Points

ARUBA IAP 103	1.3.6.1.4.1.14823.1.2.69	Aruba 103 Series
Aruba IAP 103H	1.3.6.1.4.1.14823.1.1.70	Aruba Networks
Aruba IAP 103H	1.3.6.1.4.1.14823.1.2.70	Aruba Networks
Aruba IAP 203R	1.3.6.1.4.1.14823.1.2.90	Aruba Networks
Aruba IAP 203RP	1.3.6.1.4.1.14823.1.2.91	Aruba Networks
Aruba IAP 204	1.3.6.1.4.1.14823.1.1.90	Aruba Networks
Aruba IAP 204	1.3.6.1.4.1.14823.1.1.91	Aruba Networks
ARUBA IAP 204	1.3.6.1.4.1.14823.1.2.67	Aruba200
Aruba IAP 205H	1.3.6.1.4.1.14823.1.1.76	Aruba Networks
Aruba IAP 205H	1.3.6.1.4.1.14823.1.2.76	Aruba Networks
ARUBA IAP 214	1.3.6.1.4.1.14823.1.2.73	Aruba 210 Series
ARUBA IAP 215	1.3.6.1.4.1.14823.1.2.74	Aruba 210 Series
ARUBA IAP 224	1.3.6.1.4.1.14823.1.2.58	Aruba 220 Series
ARUBA IAP 225	1.3.6.1.4.1.14823.1.2.59	Aruba 220 Series
Aruba IAP 303	1.3.6.1.4.1.14823.1.2.87	Aruba Networks
Aruba IAP 304	1.3.6.1.4.1.14823.1.2.85	Aruba Networks
Aruba IAP 305	1.3.6.1.4.1.14823.1.2.86	Aruba Networks
ARUBA IAP 314	1.3.6.1.4.1.14823.1.2.81	Aruba 310 Series
ARUBA IAP 315	1.3.6.1.4.1.14823.1.2.82	Aruba 310 Series
ARUBA IAP 324	1.3.6.1.4.1.14823.1.2.77	Aruba 320 Series
ARUBA IAP 325	1.3.6.1.4.1.14823.1.2.78	Aruba 320 Series
ARUBA IAP 334	1.3.6.1.4.1.14823.1.2.79	Aruba 330 Series
ARUBA IAP 335	1.3.6.1.4.1.14823.1.2.80	Aruba 330 Series
Aruba IAP 365	1.3.6.1.4.1.14823.1.2.88	Aruba Networks
Aruba IAP 367	1.3.6.1.4.1.14823.1.2.89	Aruba Networks
Aruba IAP Virtual Controller	1.3.6.1.4.1.14823.1.2.71	Aruba Networks
Aruba JL675A 6100 48G CL4 4SFP+	1.3.6.1.4.1.47196.4.1.1.1.250	Aruba 6100 Switch Series
Aruba JL676A 6100 48G 4SFP+	1.3.6.1.4.1.47196.4.1.1.1.251	Aruba 6100 Switch Series
Aruba JL677A 6100 24G CL4 4SFP+	1.3.6.1.4.1.47196.4.1.1.1.252	Aruba 6100 Switch Series
Aruba JL678A 6100 24G 4SFP+	1.3.6.1.4.1.47196.4.1.1.1.253	Aruba 6100 Switch Series
Aruba JL679A 6100 12G CL4 2SFP+ 139W	1.3.6.1.4.1.47196.4.1.1.1.254	Aruba 6100 Switch Series
Aruba JL693A 2930F-12G-PoE+-2G-2SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.35	HPE Aruba 2930F Switch
Aruba JL717A 8360-32Y4C	1.3.6.1.4.1.47196.4.1.1.1.400	Aruba 8360 Switch Series
Aruba JL718A 8360-16Y2C	1.3.6.1.4.1.47196.4.1.1.1.401	Aruba 8360 Switch Series
Aruba JL719C 8360-48Y6C v2 Switch	1.3.6.1.4.1.47196.4.1.1.1.422	Aruba 8360 Switch Series
Aruba JL720A 8360-48XT4C	1.3.6.1.4.1.47196.4.1.1.1.403	Aruba 8360 Switch Series
Aruba JL722A 8360-24XF2C	1.3.6.1.4.1.47196.4.1.1.1.405	Aruba 8360 Switch Series
Aruba JL817A 4100i 12G CL4/6 POE 2SFP+ DIN Sw	1.3.6.1.4.1.47196.4.1.1.1.450	Aruba 4100i Switch Series
Aruba JL818A 4100i 24G CL4/6 POE 4SFP+ Sw	1.3.6.1.4.1.47196.4.1.1.1.451	Aruba 4100i Switch Series
Aruba Mobility Master	1.3.6.1.4.1.14823.1.1.50	Aruba Networks
Aruba Mobility Master - HW - 10K	1.3.6.1.4.1.14823.1.1.55	Aruba Networks

Aruba Mobility Master - HW - 1K	1.3.6.1.4.1.14823.1.1.53	Aruba Networks
Aruba Mobility Master - HW - 5K	1.3.6.1.4.1.14823.1.1.54	Aruba Networks
Aruba MW 1700 Access Point	1.3.6.1.4.1.14823.1.2.15	Aruba MW 1700 Series Access Points
Aruba Networks Generic	1.3.6.1.4.1.14823.*	Aruba Networks
Aruba R0X25A 6410	1.3.6.1.4.1.47196.4.1.1.1.151	Aruba 6410 Switch Series
Aruba R8N85A 6000 48G CL4 4SFP Swch	1.3.6.1.4.1.47196.4.1.1.1.270	Aruba 6000 Switch Series
Aruba R8N86A 6000 48G 4SFP Swch	1.3.6.1.4.1.47196.4.1.1.1.271	Aruba 6000 Switch Series
Aruba R8N87A 6000 24G CL4 4SFP Swch	1.3.6.1.4.1.47196.4.1.1.1.272	Aruba 6000 Switch Series
Aruba R8N88A 6000 24G 4SFP Swch	1.3.6.1.4.1.47196.4.1.1.1.273	Aruba 6000 Switch Series
Aruba R8N89A 6000 12G CL4 2SFP 139W Swch	1.3.6.1.4.1.47196.4.1.1.1.274	Aruba 6000 Switch Series
Aruba R8S89A 6300M 24SR CL6 PoE 2p50G 2p25G Switch	1.3.6.1.4.1.47196.4.1.1.1.116	Aruba 6300M Switch Series
Aruba R8S90A 6300M 48SR5 CL8 PoE 2p50G 2p25G Switch	1.3.6.1.4.1.47196.4.1.1.1.117	Aruba 6300M Switch Series
Aruba R8S91A 6300M 48SR5 CL6/CL8 2p50G 2p10G Switch	1.3.6.1.4.1.47196.4.1.1.1.118	Aruba 6300M Switch Series
Aruba R8S92A 6300M 24p SFP+ LRM 2p50G 2p25G Sw	1.3.6.1.4.1.47196.4.1.1.1.119	Aruba 6300M Switch Series
Aruba R8S96A CX 10000-48Y6C	1.3.6.1.4.1.47196.4.1.1.1.600	Aruba 10000 Switch Series
Aruba R8Z96A 9300-32D 32p 400G 2P 10G Switch	1.3.6.1.4.1.47196.4.1.1.1.700	Aruba 9300 Switch Series
Aruba RAP 2WG Access Point	1.3.6.1.4.1.14823.1.2.32	Aruba RAP 2WG Series Access Points
Aruba RAP 5 Access Point	1.3.6.1.4.1.14823.1.2.31	Aruba RAP 5 Series Access Points
Aruba RAP 5WN Access Point	1.3.6.1.4.1.14823.1.2.30	Aruba RAP 5WN Series Access Points
Aruba reserved4 Access Point	1.3.6.1.4.1.14823.1.2.33	Aruba reserved4 Series Access Points
Aruba reserved6 Access Point	1.3.6.1.4.1.14823.1.2.37	Aruba reserved6 Series Access Points
Aruba reserved7 Access Point	1.3.6.1.4.1.14823.1.2.39	Aruba reserved7 Series Access Points
Aruba reserved8 Access Point	1.3.6.1.4.1.14823.1.2.49	Aruba reserved8 Series Access Points
Aruba Stack 2930F	1.3.6.1.4.1.11.2.3.7.8.5.5	HPE Aruba 2930F Switch
Aruba Undefined Access Point	1.3.6.1.4.1.14823.1.2.9999	Aruba Undefined Series Access Points
Aruba Virtual Mobility controller	1.3.6.1.4.1.14823.1.1.45	Aruba Networks
Aruba Virtual Mobility controller	1.3.6.1.4.1.14823.1.1.46	Aruba Networks
Aruba Virtual Mobility controller	1.3.6.1.4.1.14823.1.1.49	Aruba Networks
Aruba Virtual Mobility controller	1.3.6.1.4.1.14823.1.1.52	Aruba Networks
Aruba Wall jack 61 Access Point	1.3.6.1.4.1.14823.1.2.6	Aruba Wall jack 61 Series Access Points
Aruba WG 102 Access Point	1.3.6.1.4.1.14823.1.2.11	Aruba WG 102 Series Access Points
Aruba ZMaster	1.3.6.1.4.1.14823.1.3.1	Aruba Networks Switches
HPE ARUBA 2540 24G 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.182.22	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 24G 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.182.18	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 24G PoE+ 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.182.24	HPE ARUBA 2540 Switch Series

HPE ARUBA 2540 24G PoE+ 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.182.20	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 48G 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.182.23	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 48G 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.182.19	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 48G PoE+ 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.182.25	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 48G PoE+ 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.182.21	HPE ARUBA 2540 Switch Series
HPE ARUBA 2540 8G PoE+ 2SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.182.16	HPE ARUBA 2540 Switch Series
HPE Aruba 2930F 24G 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.181.22	HPE Aruba 2930F Switch
HPE Aruba 2930F 24G 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.18	HPE Aruba 2930F Switch
HPE Aruba 2930F 24G PoE+ 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.181.24	HPE Aruba 2930F Switch
HPE Aruba 2930F 24G PoE+ 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.20	HPE Aruba 2930F Switch
HPE Aruba 2930F 24G PoE+ 4SFP+ TAA-compliant Switch	1.3.6.1.4.1.11.2.3.7.11.181.276	HPE Aruba 2930F Switch
HPE Aruba 2930F 48G 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.181.23	HPE Aruba 2930F Switch
HPE Aruba 2930F 48G 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.19	HPE Aruba 2930F Switch
HPE Aruba 2930F 48G PoE+ 4SFP Switch	1.3.6.1.4.1.11.2.3.7.11.181.25	HPE Aruba 2930F Switch
HPE Aruba 2930F 48G PoE+ 4SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.21	HPE Aruba 2930F Switch
HPE Aruba 2930F 48G PoE+ 4SFP+ TAA-compliant Switch	1.3.6.1.4.1.11.2.3.7.11.181.277	HPE Aruba 2930F Switch
HPE Aruba 2930F 8G PoE+ 2SFP+ Switch	1.3.6.1.4.1.11.2.3.7.11.181.16	HPE Aruba 2930F Switch
HPE Aruba 2930M 24SR PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.6	HPE ARUBA 2930M Series
HPE Aruba 2930M 40G 8SR PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.181.9	HPE ARUBA 2930M Series
HPE Aruba 2930M Stack	1.3.6.1.4.1.11.2.3.7.8.5.7	HPE Aruba 2930M Stack Series
HPE Aruba 3810M 16 HPE Smart Rate PoE+ 2-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.7	HPE Aruba 3810 Switch
HPE Aruba 3810M 16SFP+ 2-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.5	HPE Aruba 3810 Switch
HPE Aruba 3810M 24G 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.1	HPE Aruba 3810 Switch
HPE Aruba 3810M 24G PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.3	HPE Aruba 3810 Switch
HPE Aruba 3810M 40G 8 HPE Smart Rate PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.6	HPE Aruba 3810 Switch

HPE Aruba 3810M 48G 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.2	HPE Aruba 3810 Switch
HPE Aruba 3810M 48G PoE+ 1-slot Switch	1.3.6.1.4.1.11.2.3.7.11.174.4	HPE Aruba 3810 Switch
HPE Aruba 3810M Stack	1.3.6.1.4.1.11.2.3.7.8.5.4	HPE Aruba 3810 Switch
HPE Aruba 8400 Switch	1.3.6.1.4.1.47196.4.1.1.1.1	Aruba 8400 Series

3 On the discovery page, configure SSH and SNMP credentials under Access Parameter Settings

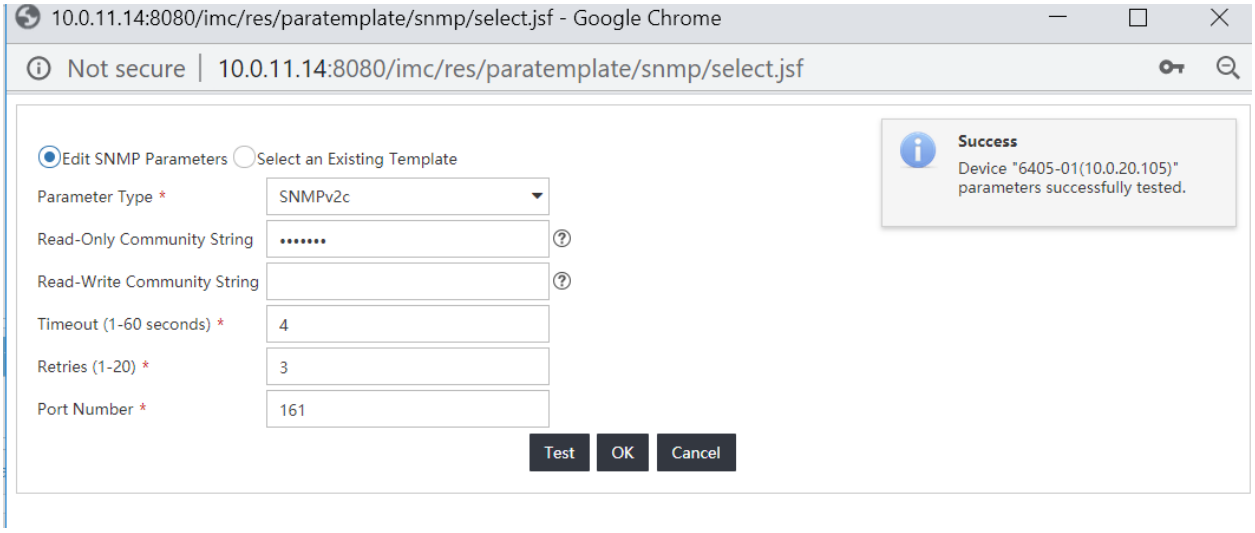
4 SNMP configuration

Management traffic has lower priority on the default VRF.

If the CX product supports a mgmt VRF, it is recommended to configure the switch to communicate with IMC for SNMP, RestAPI and all other management protocols (SSH ,TFTP, SFTP) via the management VRF.

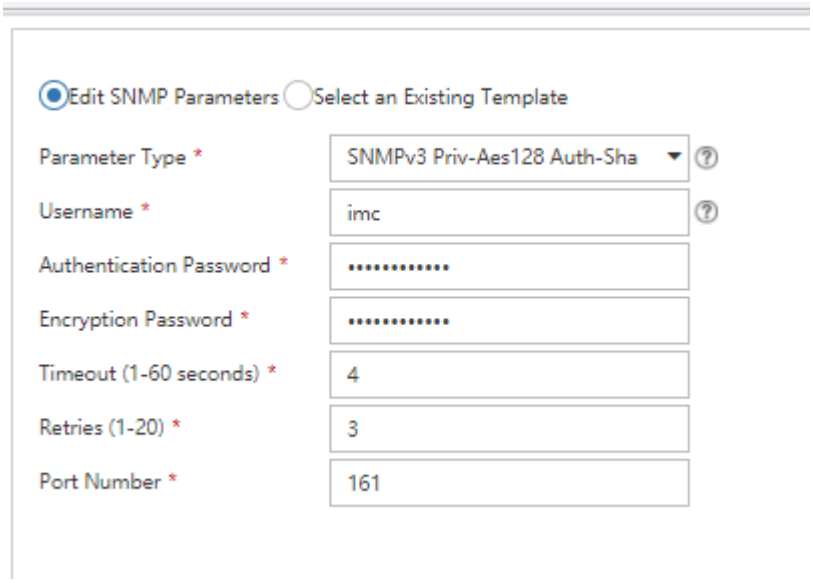
Old versions of the Aruba OS-CX products are SNMP-read only. IMC uses RESTful API to manage VLANs and ACLs.

if the CX version does not support the write operation via SNMP, you may configure a blank write community string in IMC for SNMP V2.



Example SNMP V3 AOS-CX Switch Configuration

```
snmp-server vrf mgmt
snmpv3 user imc auth sha auth-pass ciphertext ‘password’ priv aes priv-pass ciphertext ‘password’
snmp-server host 110.110.114.95 trap version v3 user imc.
```



If IMC displays ‘device does not respond to SNMP’ alarms, test SNMP template and increase timeout as necessary.

5 RESTful API Configuration for change management

VLAN configuration and ACL management are supported via RESTful API.
Changes are made to the running configuration which needs to be saved to startup separately.

ACL management is not supported on 6xxx switches.
VLAN management may not be fully functional on 6xxx devices due to timeouts on the device side.

Note

If you experience a communication timeout during VLAN and ACL Management

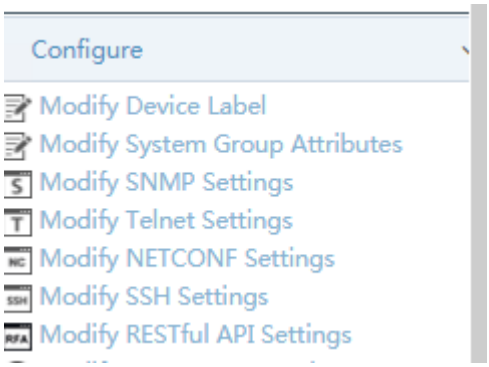
from the switch, please synchronize the device to refresh the settings, as IMC may have successfully or partially changed the configuration on the switch and not received a response.

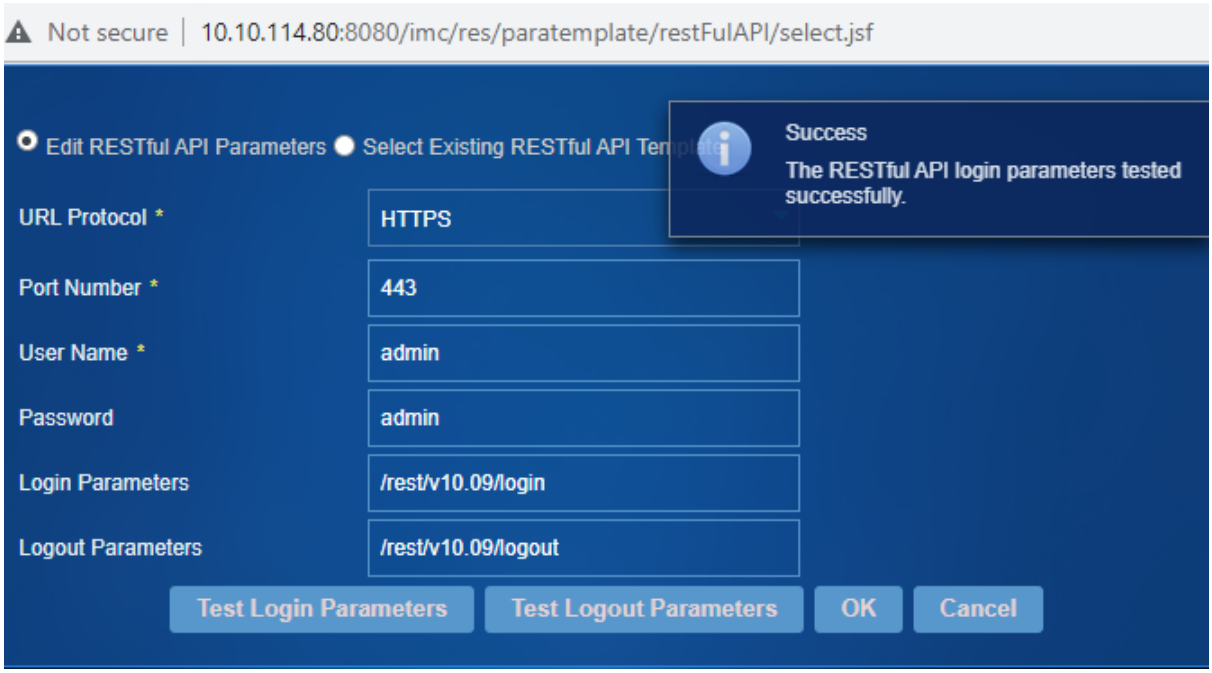
AOS-CX Switch Configuration

```
https-server rest access-mode read-write
https-server vrf mgmt
```

IMC Configuration

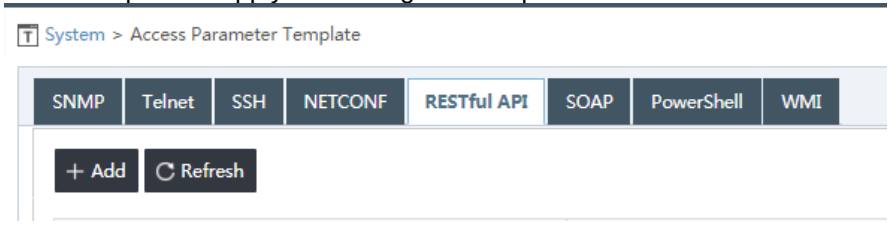
Modify RESTful API Settings on the device resource page.





IMC will use the specified port, username and password for VLAN management.
It uses version 10.09 of the CX Rest-API, even if a different version is configured in the login parameters.

Add a template to apply the settings to multiple devices:

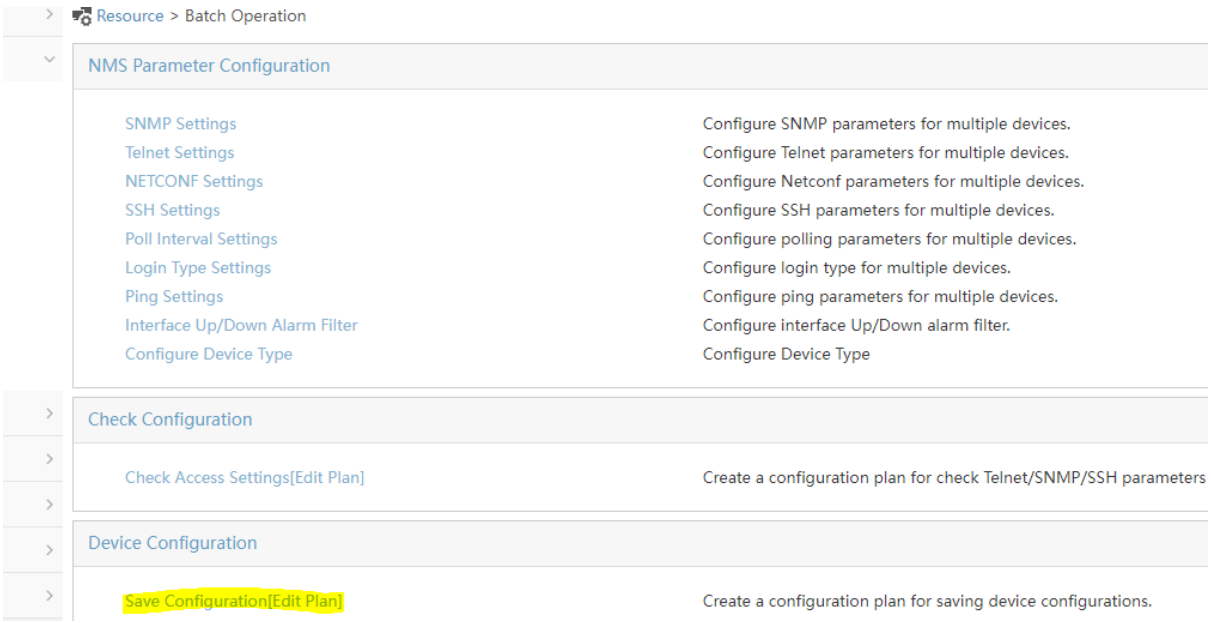


Note:

As CX SNMP management is read only, IMC is using the RestAPI for VLAN management and the switch makes the changes to the running configuration.

In order to save changes to the startup configuration, please use the Resource > Batch Operation >Save Configuration Plan.

The switch requires the user to save the configuration manually after making changes to the switches from IMC.



6 How to open SSH sessions on OS-CX devices configured with sha2

From IMC version 7.3706E0P11, IMC automatically adapts its ssh client to use the encryption supported by the device.

In earlier versions, manually create file $IMC/server/conf/putty07 as an empty file and restart IMC, following the readme.

7 TFTP and ‘SFTP Server’ file transfer modes

Configuration Backup/Restore, Software Upgrade, Compliance Check Task are deployed using scripts which require Login Type to be configured as SSH on the device page.

Software Upgrade is fully working from IMC version 708P03.

CX only supports TFTP and ‘SFTP Server’ file transfer modes.

SFTP is the preferred file transfer protocol for CX. TFTP may time out if the switch is not configured with, does not support the mgmt VRF or if the switch does not receive a reply from IMC within one second.

An SFTP server which supports SHA2 encryption must be installed on the IMC server, with a specific user and the default path to IMC.

In IMC options, the SFTP server user is configure, and ‘SFTP Server mode’ is enabled for CX devices.

Note ‘SFTP’ file transfer mode (where IMC is the client), is not supported by CX.

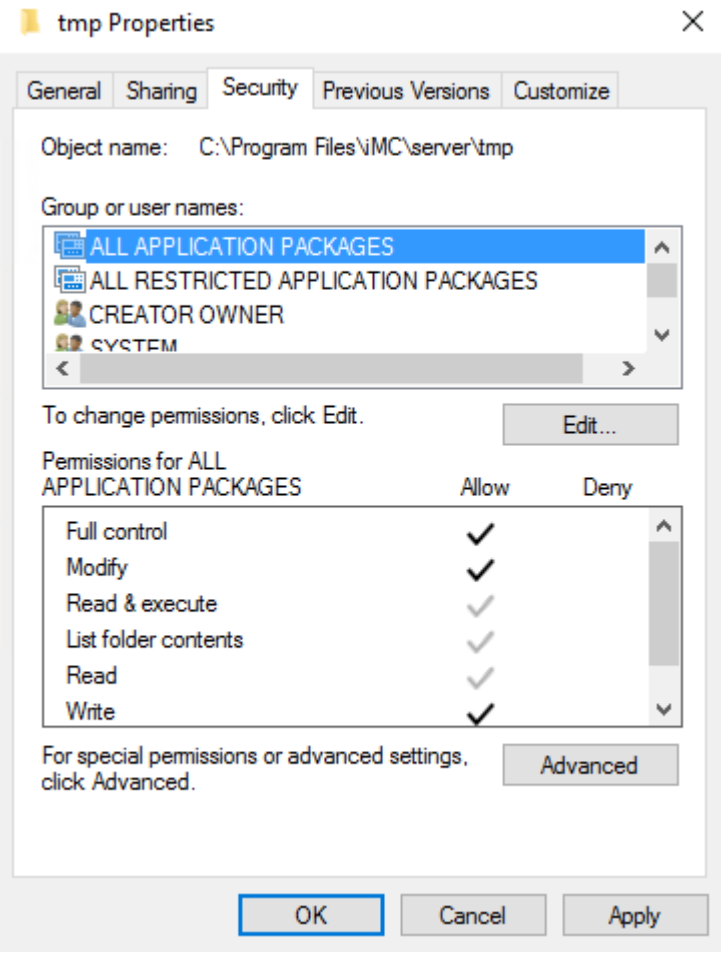
On Linux, you may use the native SFTP server.

On Windows, the Solarwinds server is recommended.

Example:

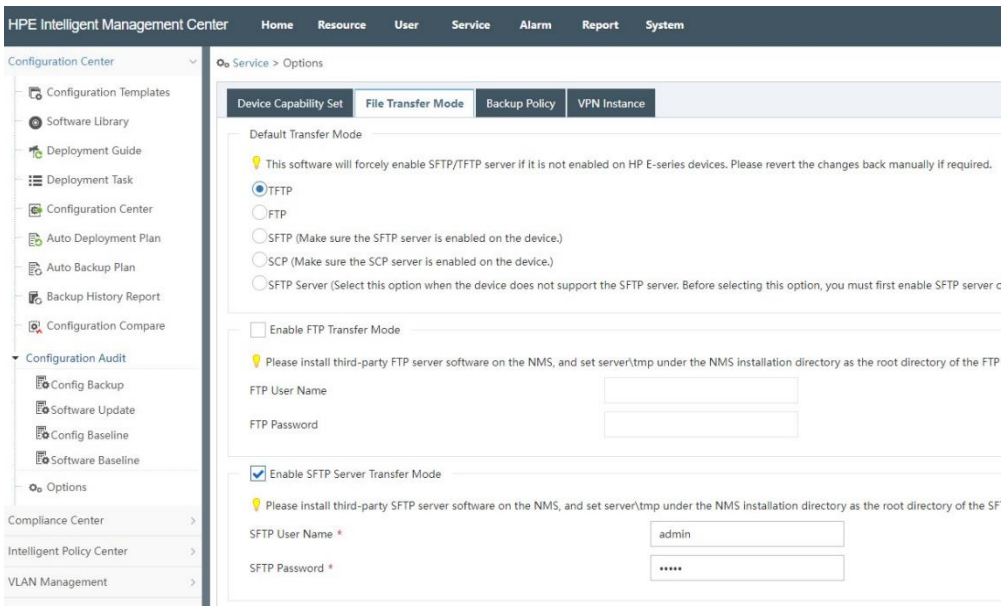
In IMC, configure SFTP Server file transfer mode.

Modify permissions for all Windows Logon users for $IMC/server/tmp to full control.

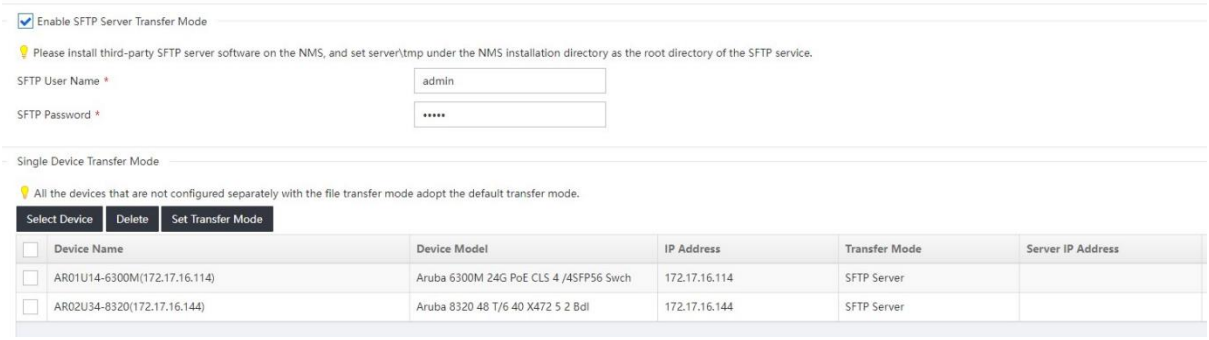


Service > Configuration Center > Options:

- enable SFTP server Transfer Mode
- configure SFTP server credentials
- configure SFTP Server transfer mode for CX devices



If the default transfer mode is not SFTP server, add all CX devices to Single Device transfer mode and set transfer mode to SFTP server



Note, the Server IP address is the IMC server, it can be left blank if the IMC server has a single IP address.

Download Solarwinds SFTP/SCP server:

https://www.solarwinds.com/free-tools/free-sftp-server/registration

Enter registration details and download SolarWinds-SFTP-SCP-Server.zip

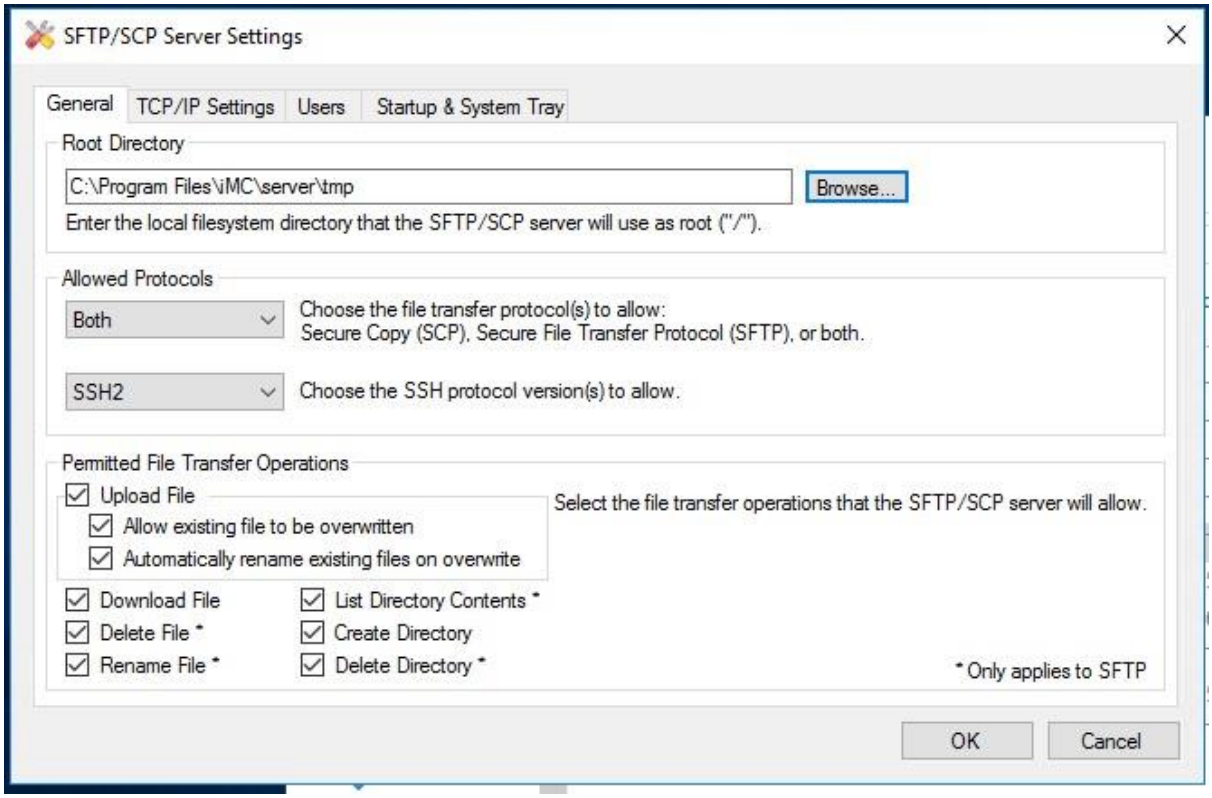
Extract zip and run SftpServerInstaller.msi

Go to folder:

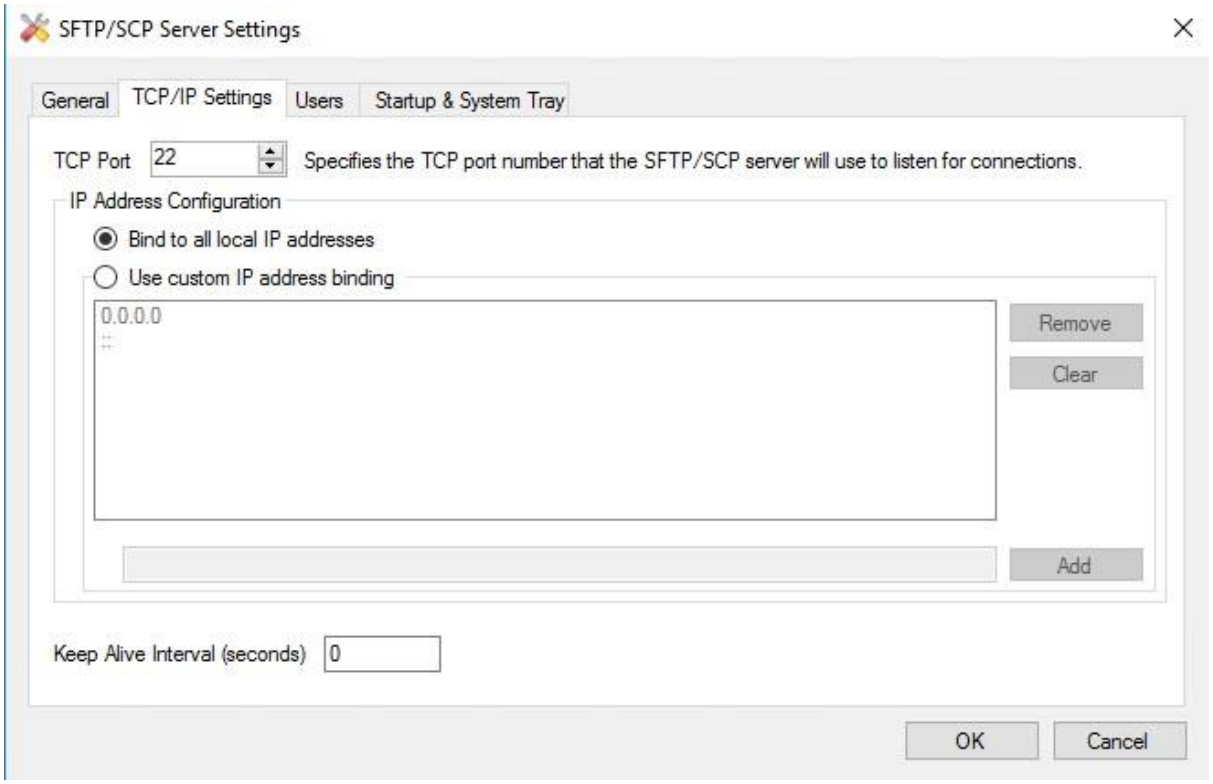
C:\Program Files (x86)\SolarWinds\SFTP & SCP Server

Run ScpServerTray.exe

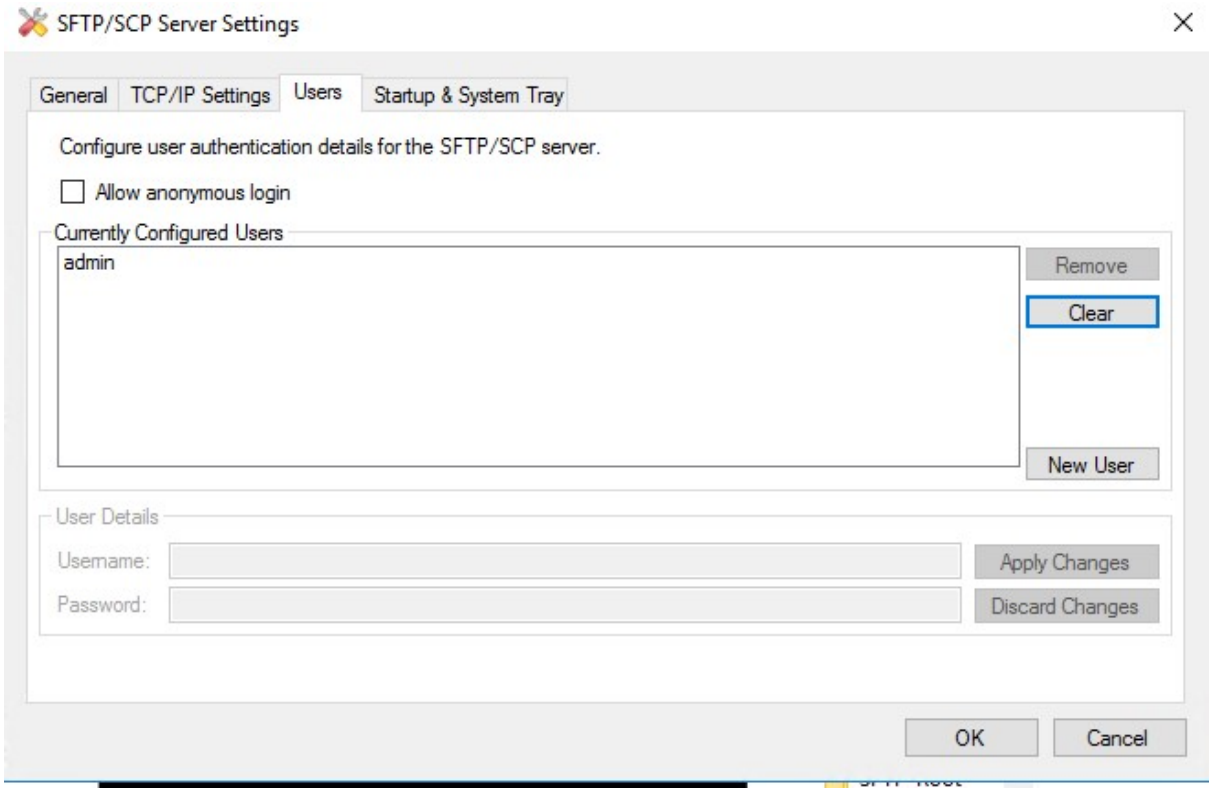
Configure Root Directory in General Tab



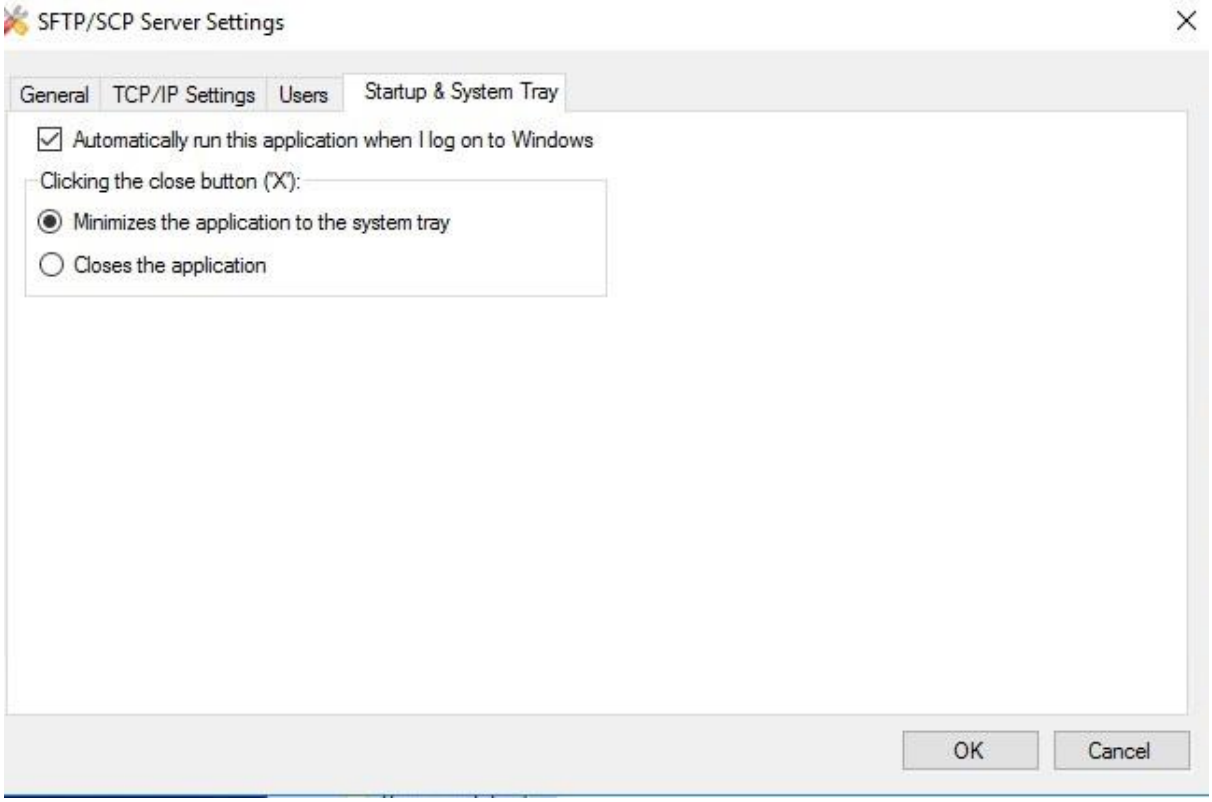
No changes to TCP/IP settings in Solarwinds. Ensure port 22 is open on firewalls and IMC's server, eg Windows defender, etc.



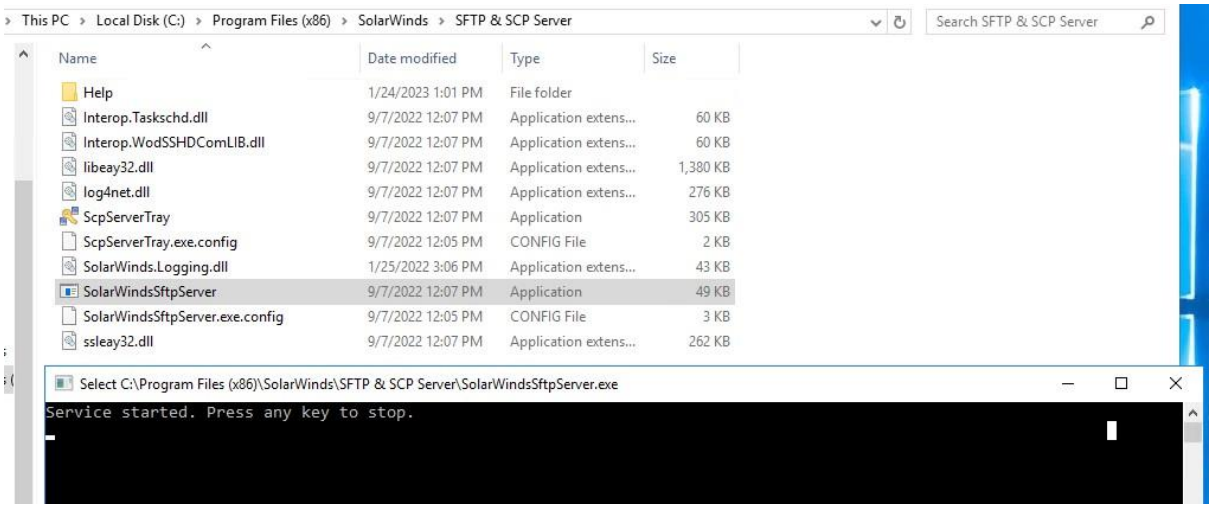
Enter SFTP server user credentials as configured in IMC's Service > Configuration Center > Options > Enable SFTP server Transfer Mode:



Select Automatically run this application when I log on Windows

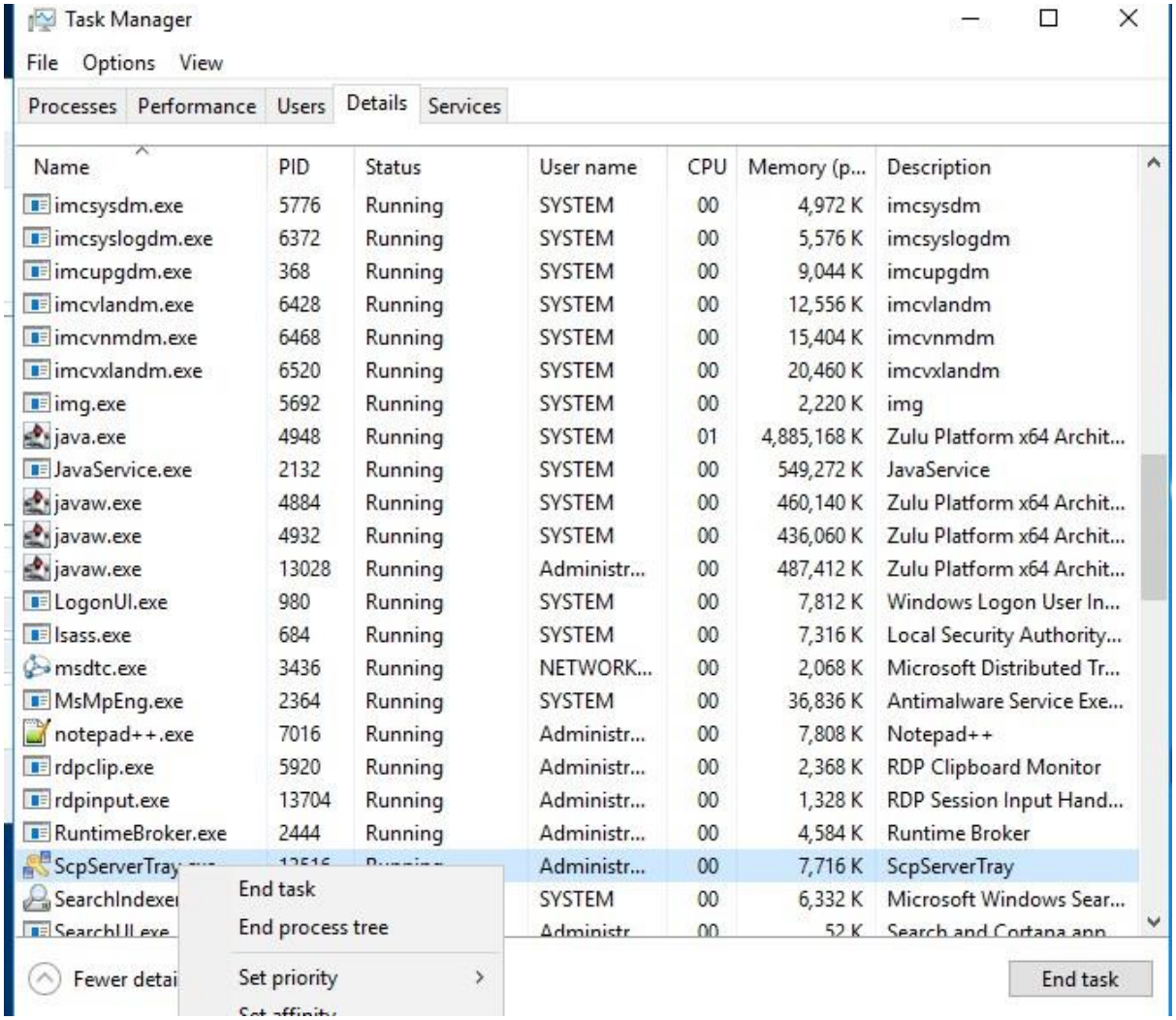


Double click on SolaWindsSFTPServer.exe to start the server.



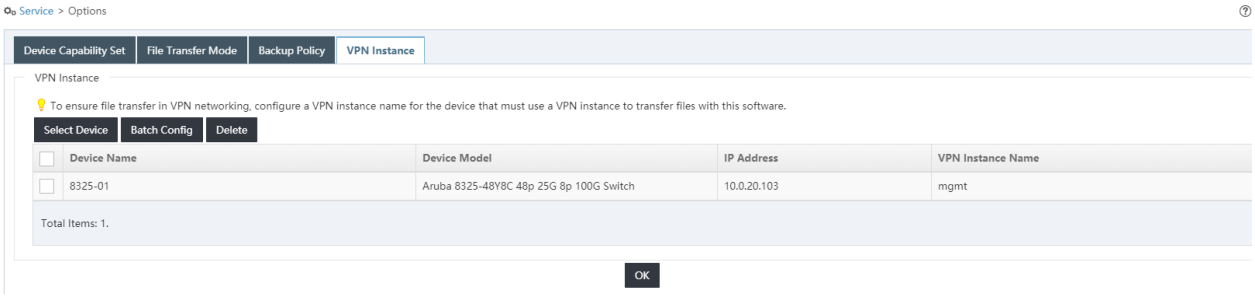
A quirk:

Once you minimize the SCP tray, you can no longer maximise it. To redisplay the tray, end process tree in Task Manager and launch it again.



8 File transfer configuration for mgmt VRF

If file transfer to the OS-CX device is over a non-default vrf (eg mgmt), configure VRF name in Service -> Configuration Management -> Option -> VPN Options, VPN instance name



9 Temperature Monitor Configuration

For temperature monitoring, IMC reads a standard MIB object in the Entity table in Celsius. This MIB object is not supported by Aruba OS CX, the following private MIB object is recommended. Therefore we need to remove the standard temperature monitor from CX devices and set up a special global index monitor on arubaWiredTempSensorTemperature. MIB object.

Global index:

Name: arubaWiredTempSensorTemperature

Custom Measurement: MillidegreesCelsius

Type:

[index1[2]:arubaWiredTempSensorGroupIndex:1:0].[index2[2]:
arubaWiredTempSensorSlotTypeIndex:1:0].[index3[2]:arubaWiredTempSensorSlotIndex:1:0].[
index4[2]:arubaWiredTempSensorIndex:1:0]]

Label:

1.3.6.1.4.1.47196.4.1.1.3.11.3.1.1

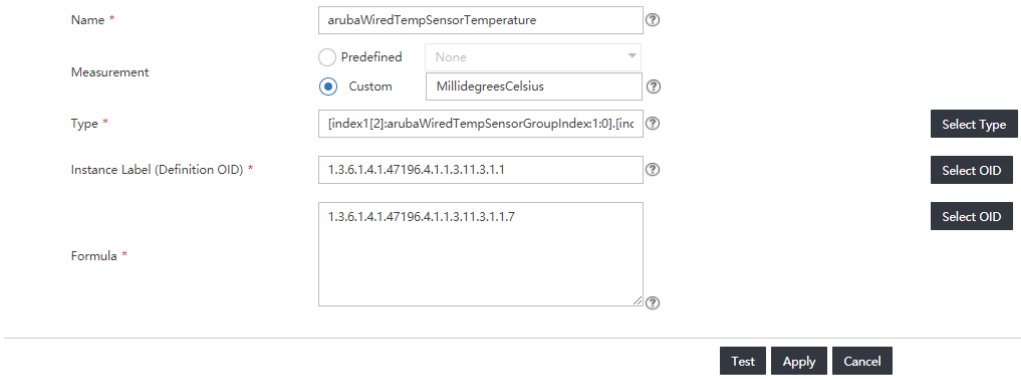
Formula:

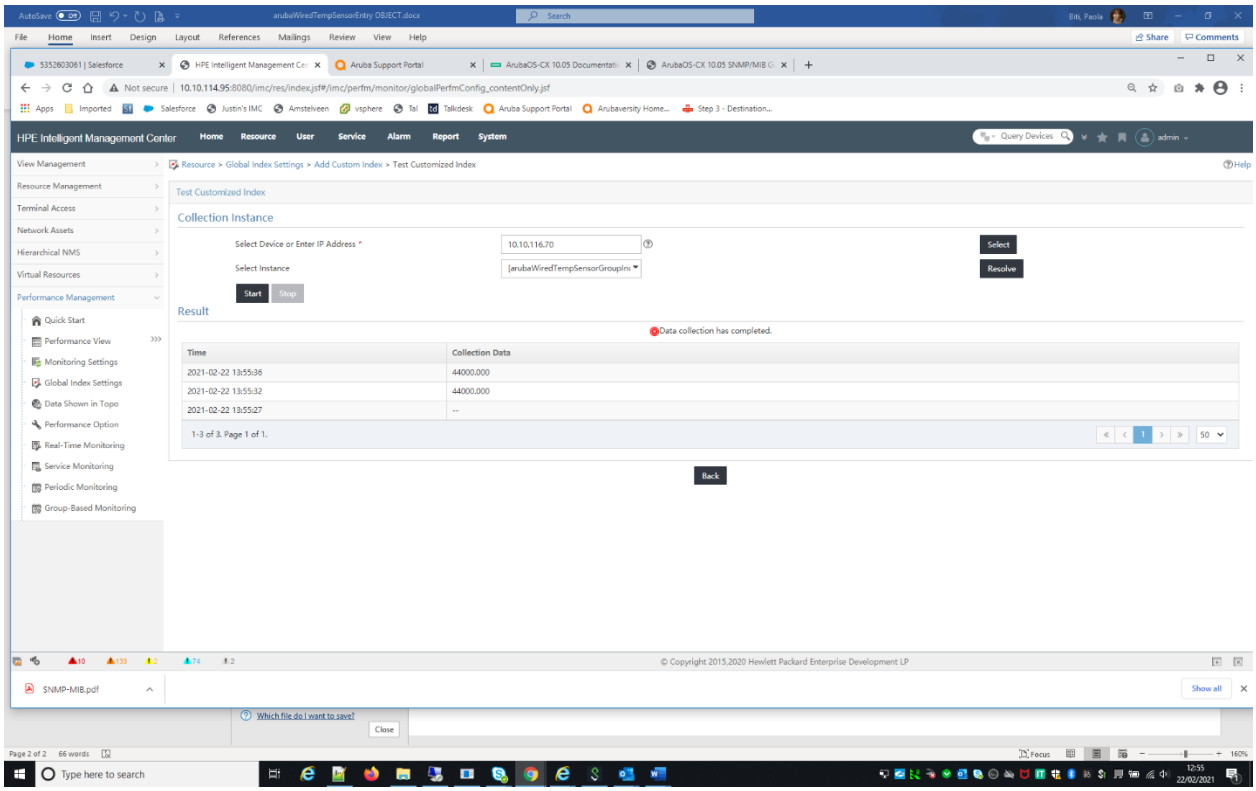
1.3.6.1.4.1.47196.4.1.1.3.11.3.1.1.7

OR, If it is required for the monitor to be displayed in Celsius use this:

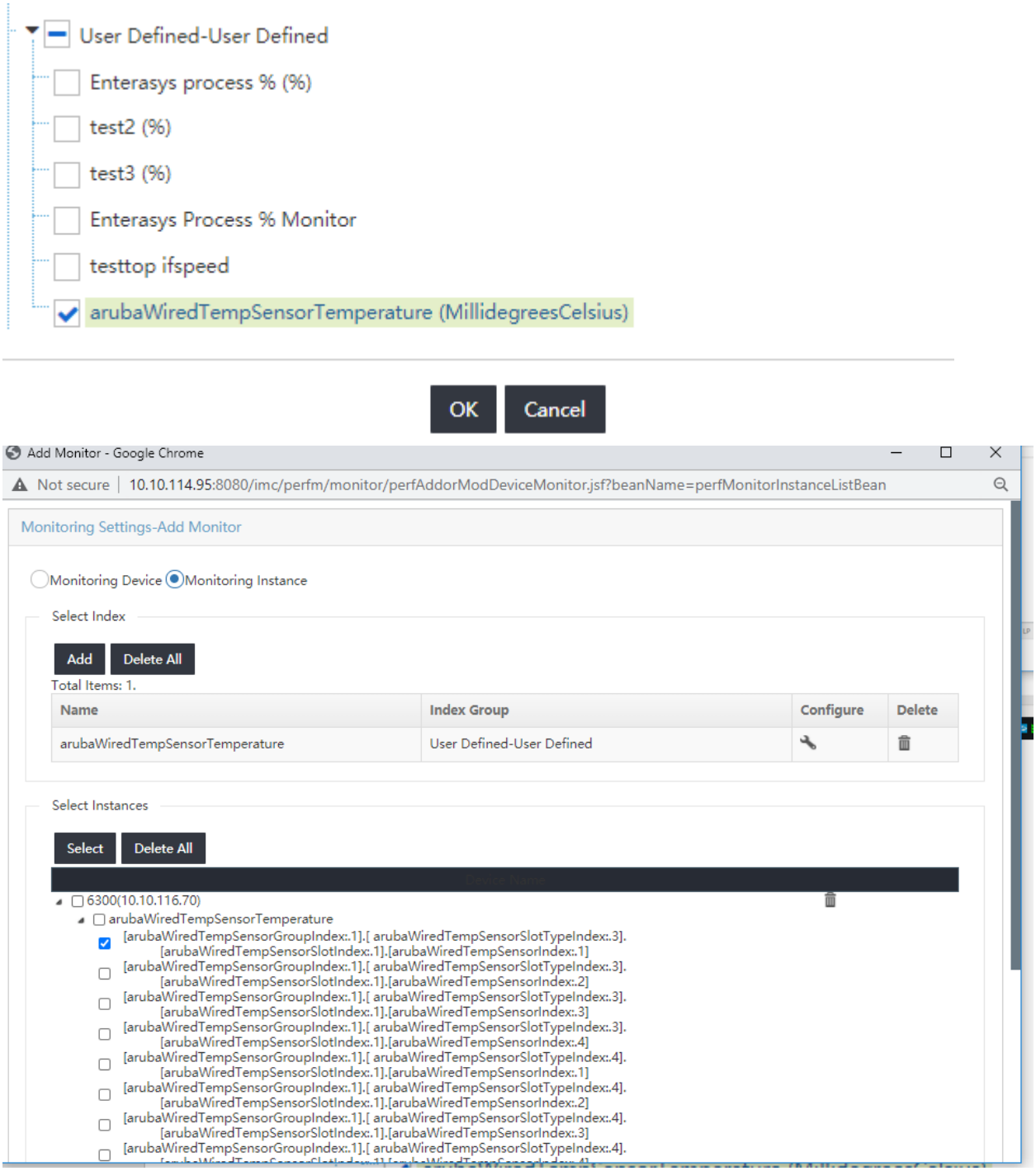
Formula:

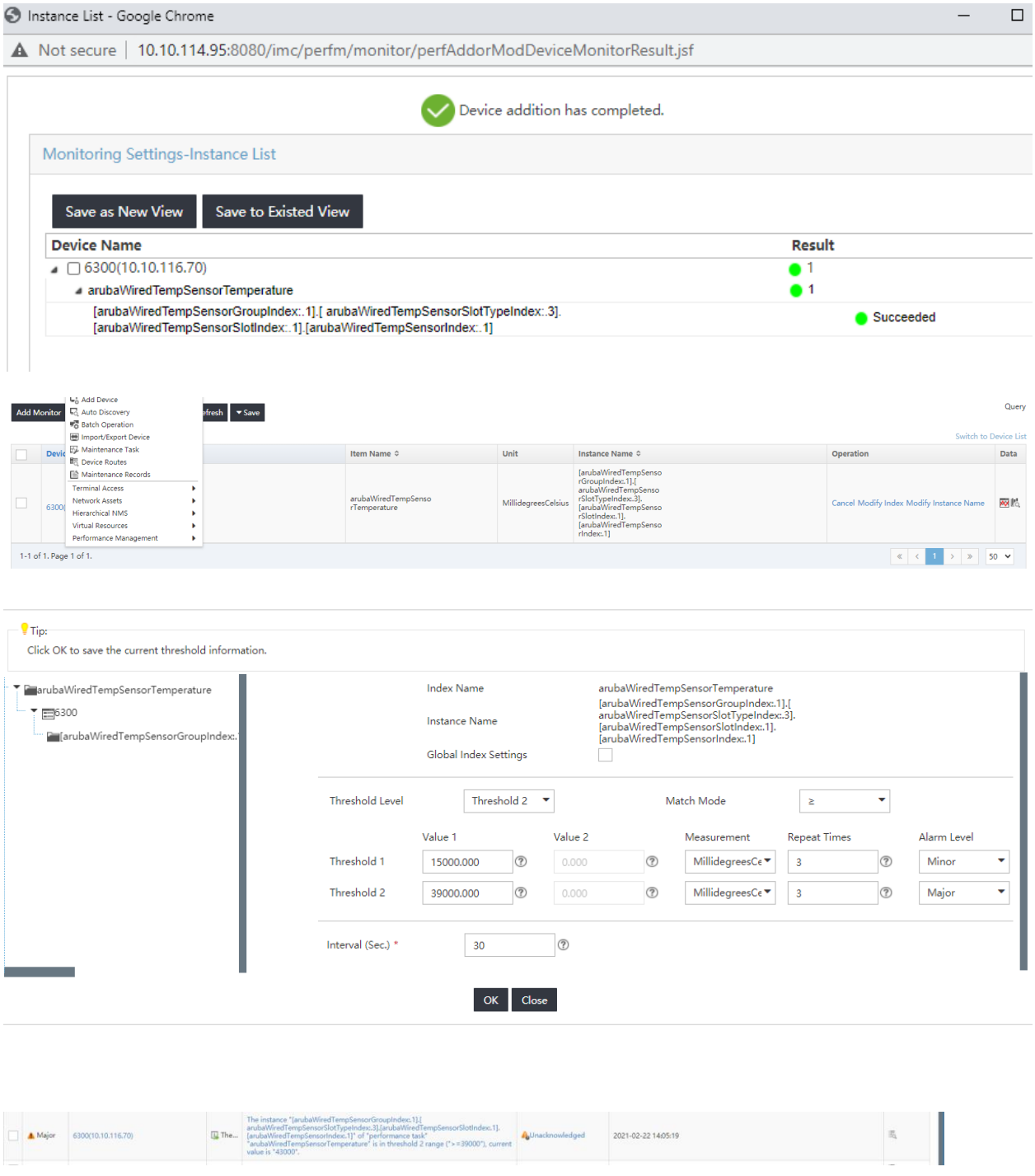
1.3.6.1.4.1.47196.4.1.1.3.11.3.1.1.7/1000





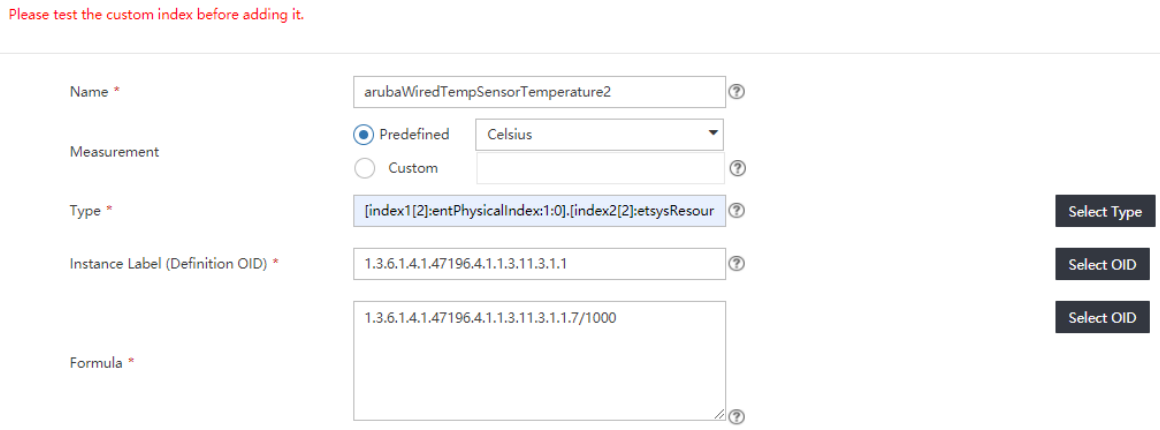
1. Add monitor


User Defined-User Defined
Enterasys process % (%)
test2 (%)
test3 (%)
Enterasys Process % Monitor
testtop ifspeed
arubaWiredTempSensorTemperature (MillidegreesCelsius)
OK
Cancel
Add Monitor - Google Chrome
Not secure | 10.10.114.95:8080/imc/perfm/monitor/perfAddorModDeviceMonitor.jsf?beanName=perfMonitorInstanceListBean
Monitoring Settings-Add Monitor
Monitoring Device
Monitoring Instance
Select Index
Add
Delete All
Total Items: 1.
Name
Index Group
Configure
Delete
arubaWiredTempSensorTemperature
User Defined-User Defined
Select Instances
Select
Delete All
6300(10.10.116.70)
arubaWiredTempSensorTemperature
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.3].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.1]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.3].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.2]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.3].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.3]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.3].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.4]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.4].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.1]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.4].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.2]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.4].
[arubaWiredTempSensorSlotIndex:.1].[arubaWiredTempSensorIndex:.3]
[arubaWiredTempSensorGroupIndex:.1].[arubaWiredTempSensorSlotTypeIndex:.4].



Or if using the formula dividing the value by 1000:

1) 1.3.6.1.4.1.47196.4.1.1.3.11.3.1.1.7.1.3.1.1 (arubaWiredTempSensorTemperature.1.3.1.1) 44000

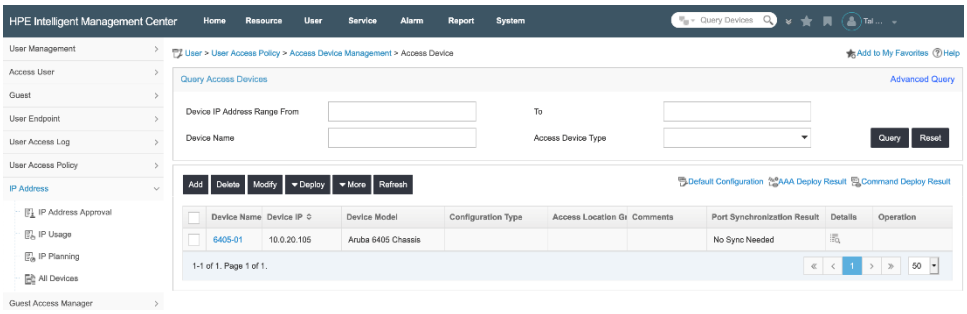


10 Radius authentication with IMC UAM

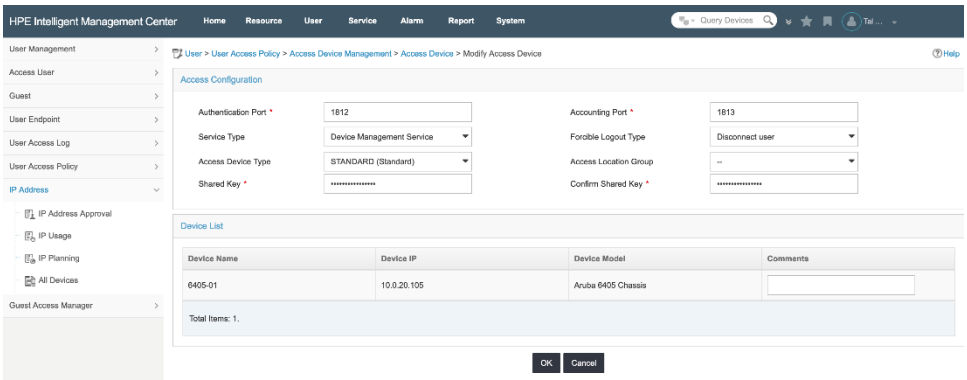
Supported by UAM 7.3E0611 and above

IMC Configuration

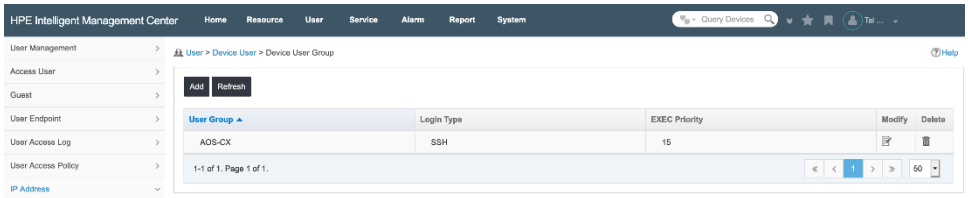
Go to User>User Access Policy>Access Device Management>Access Device and configure the access device:



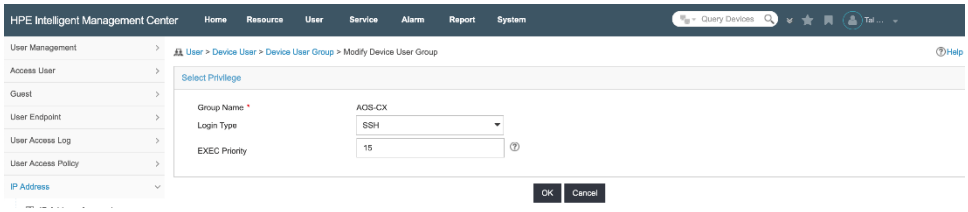
Configure Service Type to Device Management Service, and set Access Device Type to Standard:



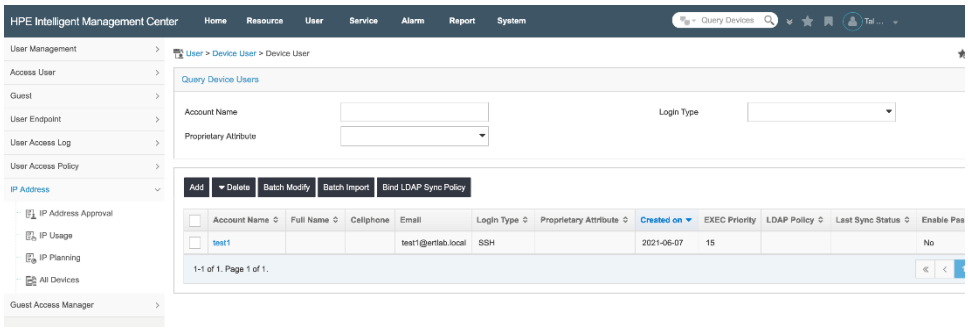
User>Device User>Device User Group, and create new user group:



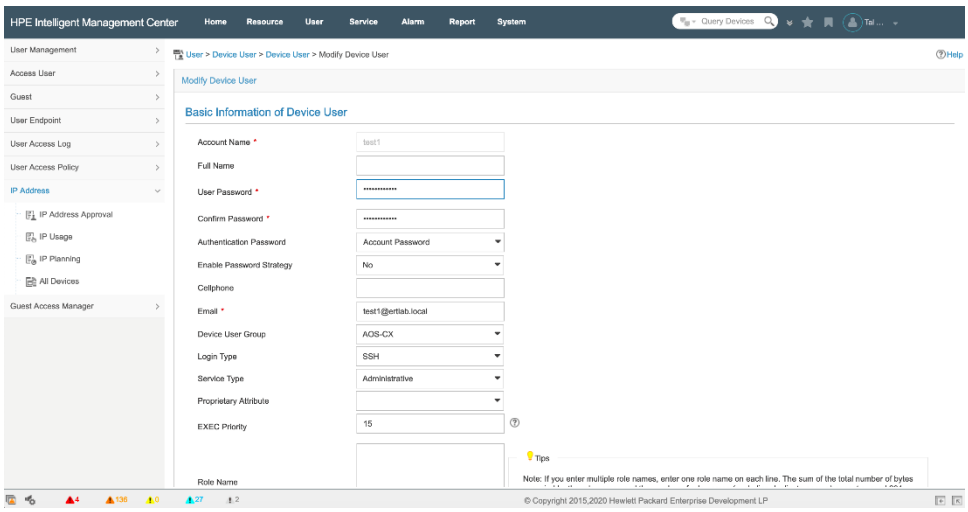
Login type will be SSH and EXEC priority will be 15:



User>Device User>Device User, and configure the user account:



Configure this account for Device User Group AOS-CX, which we configured in previous step, and change service type to Administrative:



AOS-CX Switch Configuration

```
radius-server timeout 3
radius-server retries 3
radius-server service-type in-access-request
```

```
radius-server host 10.0.11.14 vrf mgmt key plaintext <PASSWORD>
!
aaa group server radius CPPM-RADIUS
    server 10.0.11.14 vrf mgmt
!
aaa authentication allow-fail-through
aaa authentication login ssh group IMC-RADIUS local
```

11 NTA – SFLOW Configuration

OS-CX Switch Configuration

OS-CX only supports inbound traffic analysis.

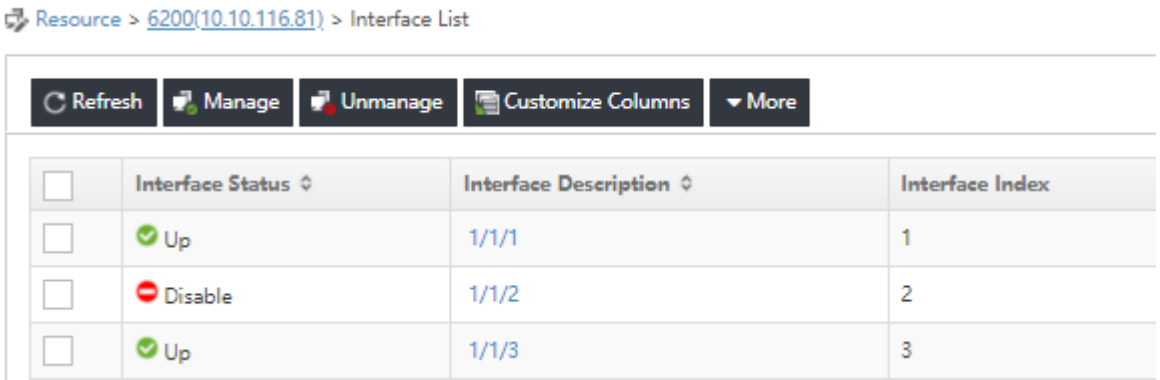
Configure: switch source IP, IMC IP, Interfaces, sampling rate and polling interval

```
sflow agent-ip 110.110.116.81
sflow collector 110.110.114.95 port 6343 vrf mgmt
interface 1/1/1
sflow
sflow sampling 4096
sflow polling 30
```

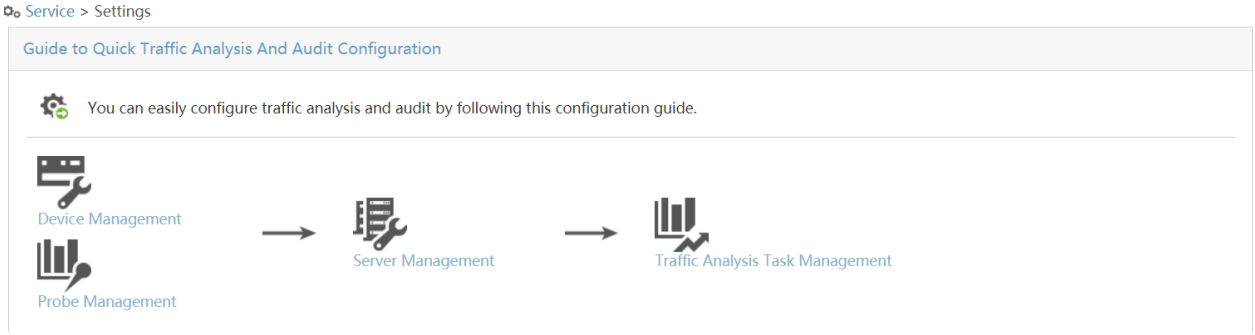
In a test lab environment, you may configure frequent sampling and polling for quicker display, note this may affect switch performance.

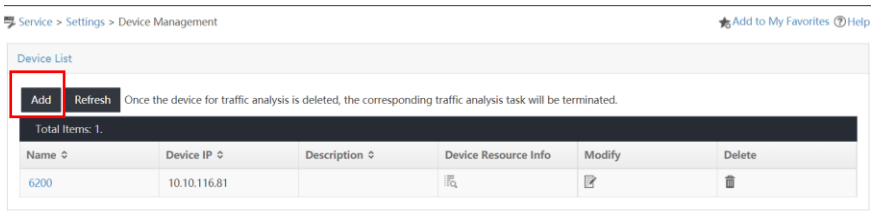
```
sflow sampling 10
sflow polling 10
```

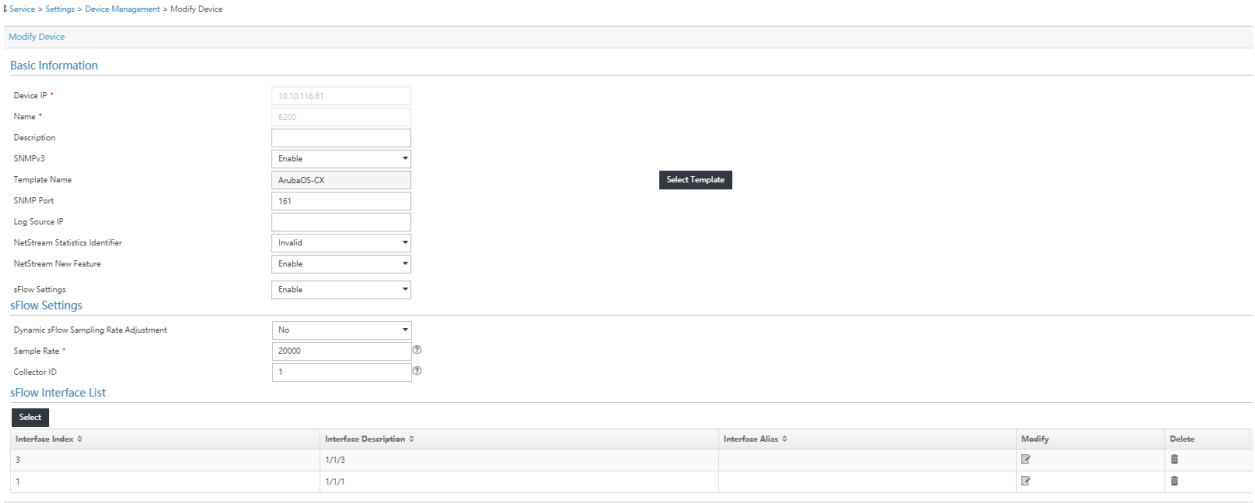
NTA Configuration

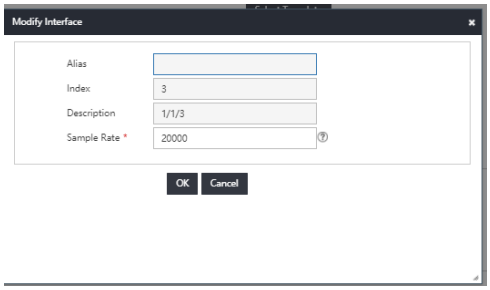


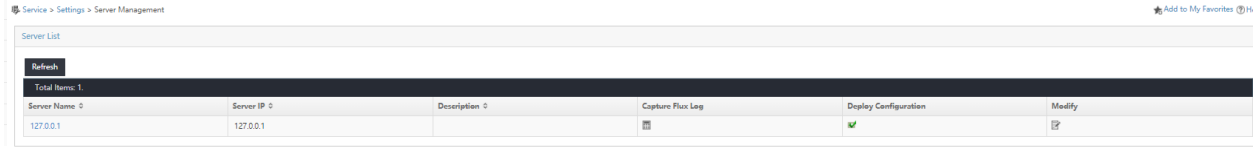
Service> Traffic Analysis and Audit > Settings

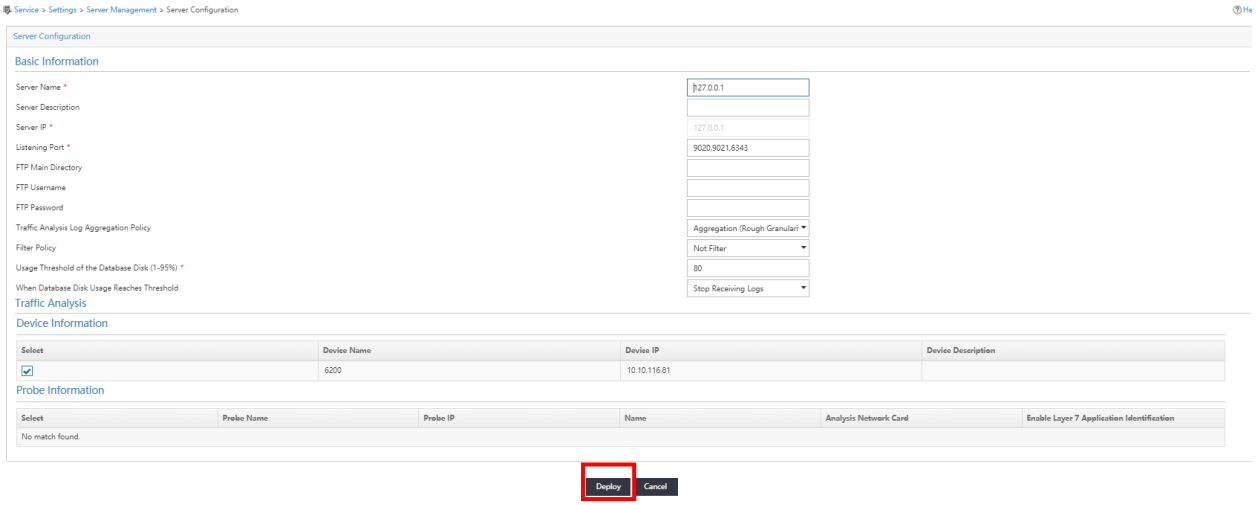


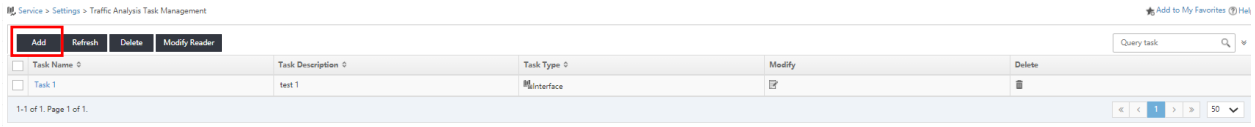


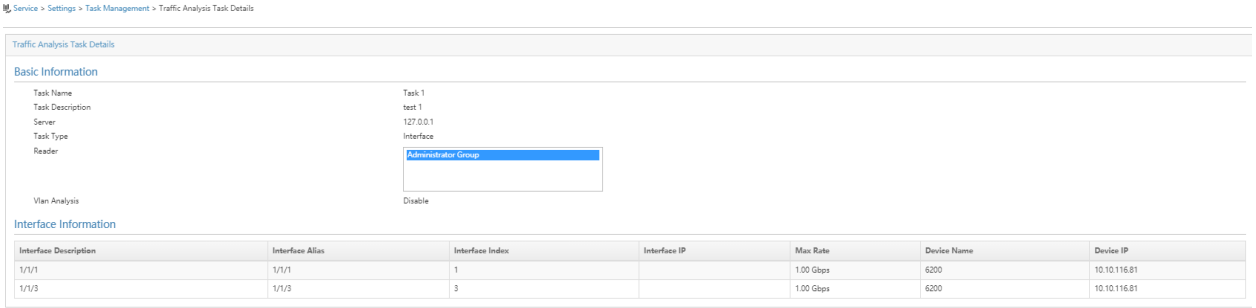






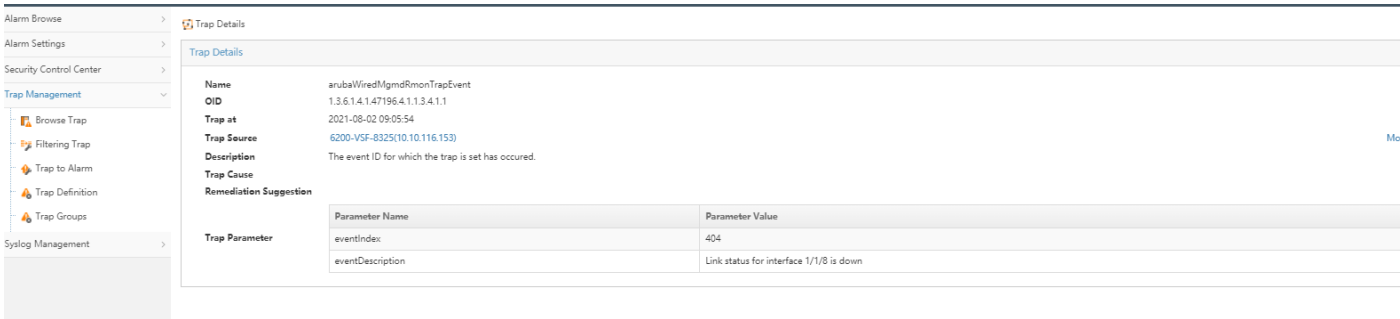






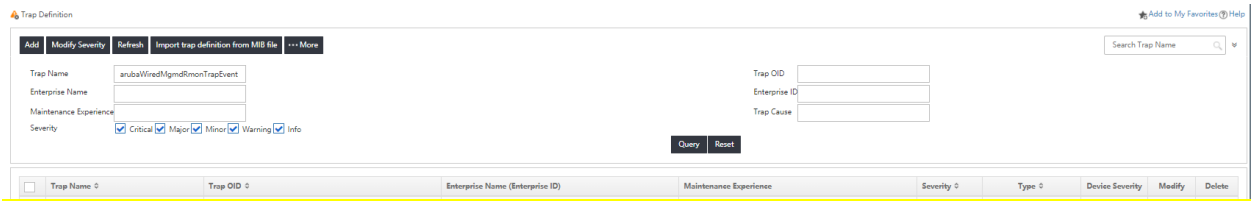
12 RMON Trap Description configuration

RMON traps description will be automatically configured in IMC version 7.3 E0706P01

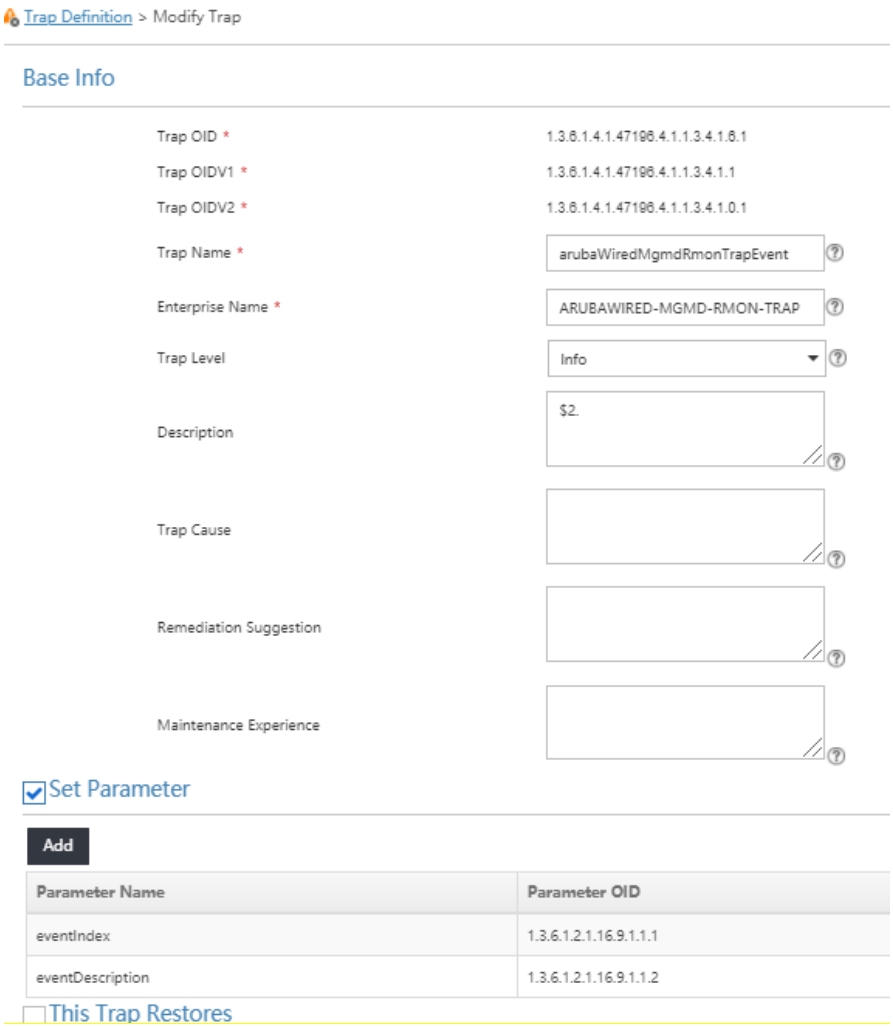


To configure IMC to display the eventDescription from the RMON traps sent from the device:

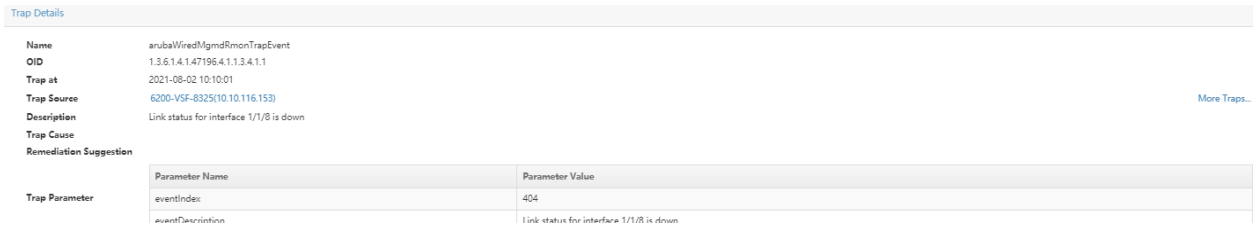
Query trap name ‘arubaWiredMgmdRmonTrapEvent’ in Alarms > Trap Management > Trap Definition



Modify Description to $2.



Result:



1. Send SNMP traps for link state changes

If interface status (link up/down) traps are required, the interface needs to be configured with the following highlighted command:

```
#show run int 1/1/25
interface 1/1/25
no shutdown
mtu 9198
trap link-status
lag 1
exit
```

13 Topology (except MSTP topology), Terminal Access, Real Time Location.

OS CX devices minimum version 10.7.x is recommended and IMC 706P06.

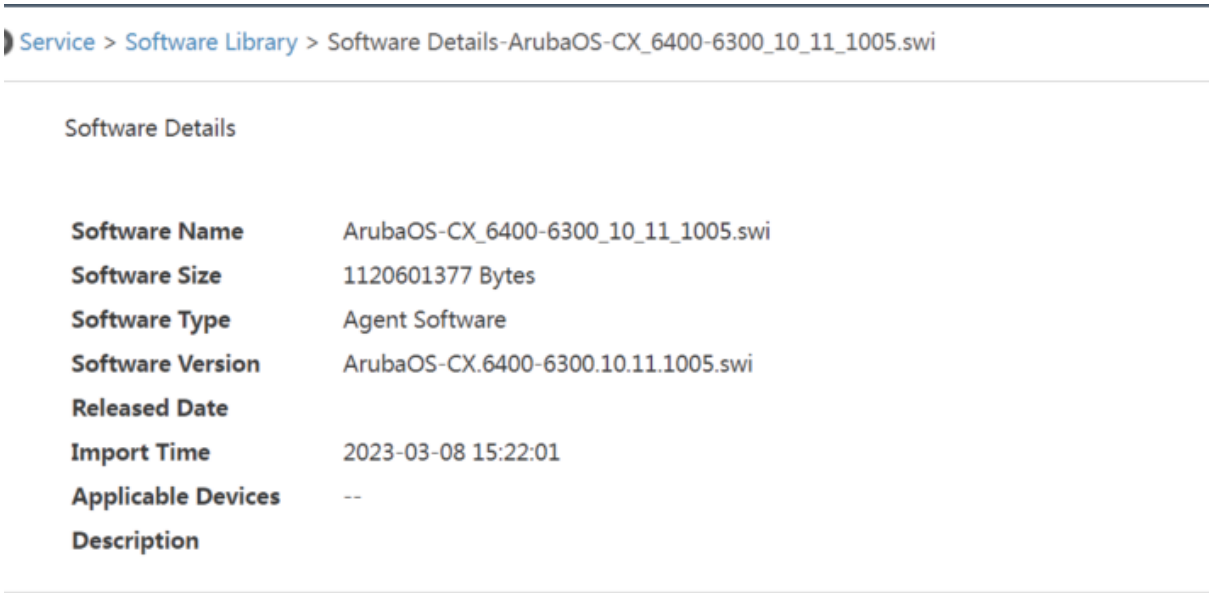
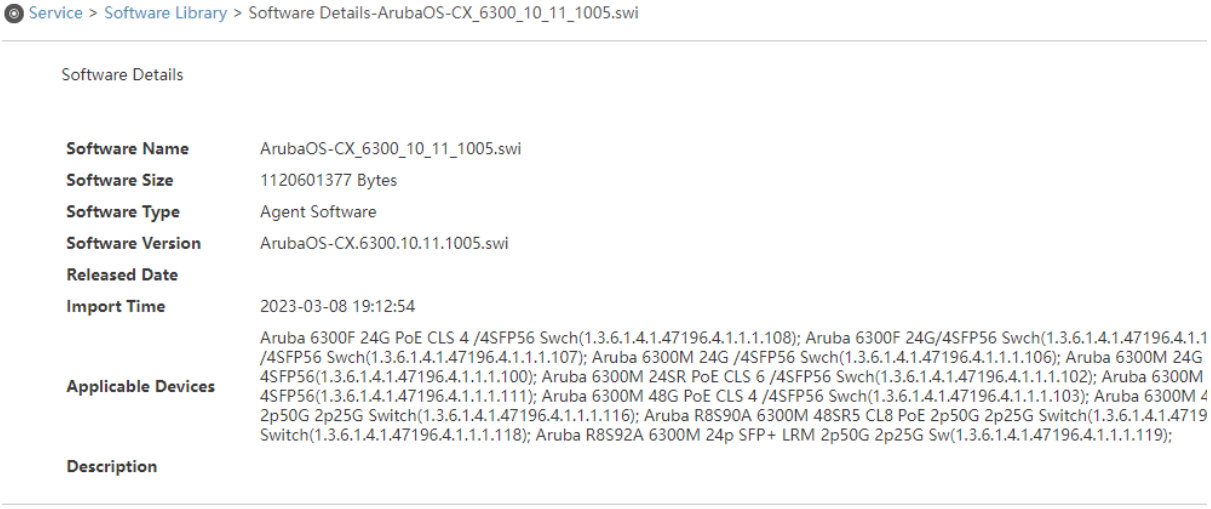
14 Renaming software files

In order for IMC to associate software files to the correct product, it is necessary to rename software files which are applicable to multiple device types, currently:

ArubaOS-CX_6400-6300..swi

ArubaOS-CX_6100-6000..swi

For example after importing file ArubaOS-CX_6400-6300_10_11_1005.swi , into the library, the field Applicable Devices is empty.



Rename the same file ArubaOS-CX_6300_10_11_1005.swi, import it into the software library, and the applicable devices list is complete.