

ICN R3 Timeline

Goals

- Distributed Cloud Manager
- SD-eWAN Controller
- Openness Integration in ICN
- SFC in OVN4NFV
- ICN Readiness
- ICN Maturity

Timelines

Start Date	Release	Sprint	Notes
Jan 15th	v0.3.1	Sprint9 Sprint10 Sprint11	• ICN bugs • KUD Bugs - OVN, SRIOV, networking • KUD reset/scaling • KUD Deliverables - QAT, CMK • BPA operator reset, scaling • Virtlet Remote access • DCM - API, Design and architecture lighting talk, Phase 1 deliverables • SDWAN - API, Design and architecture lighting talk, Phase 1 deliverables • Openness, Design and architecture lighting talk, Phase 1 deliverables • KUD Updates lighting talk, Phase 1 deliverables • Akraino Maturity Lighting talk & plans • lab setup
Feb 26th	v0.3.2	Sprint12 Sprint13 Sprint14	• DCM, Phase 2 deliverables • SDWAN, Phase 2 deliverables • Openness, Phase 2 deliverables • KUD, Phase 2 deliverables • Akraino Maturity, CI/CD updates - Phase 1 deliverable
April 1st	v0.3.2	Sprint15- April 1st Sprint16 - April 15th Sprint17 - April 29th	• DCM, Phase 3 deliverables • SDWAN, Phase 3 deliverables • Openness, Phase 3 deliverables • KUD, Phase 3 deliverables • Akraino Maturity, Blue Val, CI/CD - Phase 2 deliverable
April 30th	v0.3.3		• DCM, Final deliverables • SDWAN, Final deliverables • Openness, Final deliverables • Infra Global controller, Final deliverables • KUD, Final deliverables • Akraino Maturity, Blue Val CI/CD - Final deliverable

	Release /Tag	Features	Plan/Status Tracking (Please update your JIRAs and note any issues/road blocks with date stamp)
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Jan 15th

v0.3.1

Itohan Ukponmwan

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Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
⚡ ICN-214 - DCM dev works DONE ⚡ ICN-214 - DCM dev works DONE ⚡ ICN-3 - Binary provisioning Agent controller IN PROGRESS 🟢 ICN-266 - Modify Istio to use different suffix IN PROGRESS 🟢 ICN-292 - Write DCM code to read from database DONE 🟢 ICN-304 - Ramp Up on Mongo DB GO API DONE 🟢 ICN-306 - Ramp up on Resource Synchronizer Library DONE 🟢 ICN-325 - Install istio on multiple namespaces IN PROGRESS 🟢 ICN-326 - Figure out how to create user using ONAP4k8s resource sync TO DO	🟢 ICN-236 - Install 2 Istio control planes in one cluster DONE 🟢 ICN-198 - Ramp up DCM DONE 🟢 ICN-173 - BPA controller to throw error if the same hosts in multiple provisioning CR DONE 🟢 ICN-266 - Modify Istio to use different suffix IN PROGRESS 🟢 ICN-292 - Write DCM code to read from database DONE 🟢 ICN-304 - Ramp Up on Mongo DB GO API DONE 🟢 ICN-306 - Ramp up on Resource Synchronizer Library DONE 🟢 ICN-325 - Install istio on multiple namespaces IN PROGRESS 🟢 ICN-326 - Figure out how to create user using ONAP4k8s resource sync TO DO	Sprint 10	Sprint 11	
	Sprint 10	Sprint 11		
	Sprint 9	Sprint 10		
	Sprint 13	Sprint 14		
	Sprint 13	Sprint 14		
	Sprint 13	Sprint 13		
	Sprint 14	Sprint 14		
	Sprint 14			
	Sprint 14			

Igor Duarte Cardoso

Bluval for ICN

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-314 - DCM dev works DONE	 ICN-376 - DCM re-ramp on Itohan's docs DONE	Sprint 20		Istio
	 ICN-380 - Install Istio for replicated control planes DONE	Sprint 20		Istio
	 ICN-381 - Test forwarding traffic to custom suffix DONE	Sprint 20		Istio
	 ICN-382 - Design+document APIs for Service Mesh deployment controller DONE	Sprint 20		Istio
	 ICN-383 - Evaluate "Kubeconfig API (WORK IN PROGRESS)" DONE	Sprint 20		Istio
	 ICN-384 - Evaluate apply.go implementation DONE	Sprint 20		Istio
	 ICN-385 - Create Namespace in all clusters DONE	Sprint 21+		Istio
	 ICN-386 - Create User in all clusters DONE	Sprint 21+		Istio
	 ICN-387 - Create Quota in all clusters DONE	Sprint 22+		Istio
	 ICN-388 - Create Service mesh in all clusters DONE	Sprint 22+		Istio
 ICN-1 - Metal3 Baremetal Operator in ICN Stack IN PROGRESS	 ICN-369 - Review Rama's ICN patches DONE	Sprint 18	Sprint 18	
 ICN-217 - KuD R3 Release works IN PROGRESS	 ICN-370 - ECMO V2 Integration in ICN R3 Release version DONE	Sprint 19	Sprint 19	
 ICN-356 - ICN Bluval compliance for R3 DONE	 ICN-342 - Test run of ICN Bluval DONE	Sprint 16	Sprint 16	
	 ICN-353 - Deploy Jenkins ICN DONE	Sprint 16	Sprint 16	
	 ICN-345 - Configure Jenkins for ICN Bluval DONE	Sprint 16	Sprint 16	
	 ICN-346 - Implement changes for ICN Bluval private Jenkins DONE	Sprint 16	Sprint 16	
	 ICN-347 - Remove ICN Bluval ci-management dependency DONE	Sprint 17	Sprint 17	
	 ICN-348 - Investigate missing OS Bluval testing DONE	Sprint 17	Sprint 17	
	 ICN-350 - Seek solution for k8s conformance Bluval failure DONE	Sprint 17	Sprint 17	
	 ICN-357 - Investigate kubehunter failures DONE	Sprint 17	Sprint 17	
	 ICN-360 - Jenkins Bluval: always fresh-install KUD cluster DONE	Sprint 18	Sprint 19	
	 ICN-361 - Test Randy's remediations for kubehunter DONE	Sprint 18	Sprint 18	
	 ICN-362 - Write ICN Bluval wiki page DONE	Sprint 18	Sprint 18	
	 ICN-364 - Jenkins job configurations for long-term Bluval DONE	Sprint 18	Sprint 19	
	 ICN-379 - Prepare final report for security SC DONE	Sprint 19	Sprint 19	

Enyinna Ochulor

• Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
🔧 ICN-244 - DCM dev works DONE	📌 ICN-236 - Ramp on gRPC and REST in GO DONE	Sprint 9		
	📌 ICN-226 - Model and Present Sample DCM DONE	Sprint 10		
	📌 ICN-238 - Build DCM service - Add CRUD operations (without logic) DONE	Sprint 10		

Tingjie Chen

Persistent Memory Container Storage Interface (PMEM-CSI)

• Investigate the setup for PMEM-CSI demo

• Setup and Build Plugin for Optane PM

• Architecture and Use case design for PMEM

Epic	JIRA Story	Sprint /Estimated Completion Date	Status /Actual Completion Date	Notes
🔧 ICN-243 - Persistent Memory Container Storage Interface (PMEM-CSI) TO DO	📌 ICN-244 - Investigate the setup for PMEM-CSI demo DONE	Sprint 10		
	📌 ICN-262 - Setup and Build Device Plugin for Optane PM DONE	Sprint 13		Submit draft patch for enabling PMEM-CSI plugin in KUD repo.
	📌 ICN-268 - Architecture and Use case Design for Optane PM DONE	Sprint 13		Proposed several scenarios for AEP and CSI usage for ICN, need the discussion and approval.
	📌 ICN-334 - E2E support for PMEM-CSI plugin DONE	Sprint 15		E2E support for PMEM-CSI plugin
	📌 ICN-336 - Documentation for AEP and PMEM-CSI plugin DONE	Sprint 15		Documentation for AEP and PMEM-CSI plugin

- SD-EWAN Restful API (MWAN3) definition
- WMAN3 Restful API POC
- SD-EWAN Service Restful API
 - Get available services (e.g. mwan3, ipsec, firewall)
 - Execute Service

Huifeng Le

Epic	JIRA Story	Sprint /Estimated Completion Date	Status /Actual Completion Date	Notes
 ICN-190 - E2E usages for SDWAN module in ICN to support multiple cluster communication through security WAN intertaces TO DO	☒ ICN-211 - MWAN3 Restful API DONE	Sprint 9	Sprint 9	
	☒ ICN-221 - EWAN Restful API POC DONE	Sprint 10	Sprint 10	
	☒ ICN-233 - EWAN Restful API Go Client POC DONE	Sprint 10	Sprint 10	
	☒ ICN-236 - EWAN Service Restful API DONE	Sprint 10	Sprint10	
	☒ ICN-271 - EWAN MWAN3 API implementation DONE	Sprint 11	Sprint 11	
	 ICN-272 - EWAN Firewall API definition DONE	Sprint 12	Sprint 12	
	 ICN-273 - EWAN Firewall API implementation DONE	Sprint 13	Sprint 13	
	☒ ICN-301 - EWAN Firewall CRD/Rest API integration DONE	Sprint 13		postpone to R3.1
	☒ ICN-313 - PoC for integration scenario DONE	Sprint15	Sprint15	
	 ICN-314 - SDEWAN E2E test scenario integration DONE	Sprint16	Sprint17	
	☒ ICN-372 - SDEWAN Central Controller /Traffic Hub design DONE	Sprint21		
	☒ ICN-391 - SDEWAN Central Controller: POC for golang Restful API Server DONE	Sprint21		

- ICN R3 Deliverables

Kuralamudhan Ramakrishnan

- All bug fixed for ICN R2 and customer readiness
- DCM, SD-eWAN, Openness in ICN R3 release
- Offline deployment & Global controller completion in R3
- Launch & Performance Dashboard
- CI/CD system & ICN maturity

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
ICN-61 - ICN CI / CD works TO DO	ICN-178 - ICN SDL works DONE	Sprint 9	Sprint 9	
ICN-1 - Metal3 Baremetal Operator in ICN Stack IN PROGRESS	ICN-199 - Metal3 Refactoring & ICN R2 bug Fixes - OS and user data DONE	Sprint 9	Sprint 11	
ICN-214 - DCM dev works DONE	ICN-192 - DCM lighting talk - API & Design development DONE	Sprint 9	Sprint 9	
ICN-191 - Integration OpenNESS with ICN TO DO	ICN-194 - Openness & SDWAN Lighting talks - API & design prep DONE	Sprint 9	Sprint 9	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-228 - Ramp up on OVN4NFV and running the patches DONE	Sprint 11	Sprint 11	
ICN-228 - Ramp up on OVN4NFV and running the patches DONE	ICN-267 - ICN script updates DONE	Sprint 11	Sprint 11	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-260 - OVN containerization DONE	Sprint 12	Sprint 12	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-263 - Adding OVN4K8s in Kubespray DONE	Sprint 14/15/16/17	Sprint 17	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-264 - Making OVN4NFV as the primary network DONE	Sprint 12/13	Sprint 13	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-302 - Refactoring OVN coding for OVN containerization daemonset DONE	Sprint 13/14	Sprint 13/14	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-311 - Introducing Provider Network Direct type DONE	Sprint 14	Sprint 14	
ICN-1 - Metal3 Baremetal Operator in ICN Stack IN PROGRESS	ICN-321 - Bug fixes & Testing for ICN Baremetal Operator version DONE	Sprint 14	Sprint 14	
ICN-1 - Metal3 Baremetal Operator in ICN Stack IN PROGRESS	ICN-319 - Fix the ICN baremetal operator version DONE	Sprint 14	Sprint 14	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-322 - Bug fixes for the OVN4NFV-K8s plugin primary routing issues DONE	Sprint 15	Sprint 15	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-316 - Akraio ICN installation issue on baremetal server #ICN DONE	Sprint 15	Sprint 15	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-330 - CNI Server development in ONAP4K8s DONE	Sprint 16	Sprint 16	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-331 - CNI shim development in ONAP4K8s DONE	Sprint 16	Sprint 16	
ICN-189 - ICN CI/CD TO DO	ICN-353 - ICN BM and VM installer script improvement DONE	Sprint 17	Sprint 17	
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-343 - Post review patches for OVN4NFV DONE	Sprint 20/21		
ICN-189 - ICN CI/CD TO DO	ICN-346 - Documentation and patch review for ICN Release DONE	Sprint 18/19/20		
ICN-236 - OVN4K8SNFV development work IN PROGRESS	ICN-356 - Post review for Kubespray DONE	Sprint 20/21		
ICN-189 - ICN CI/CD TO DO	ICN-359 - Code review and CI/CD Testing DONE	Sprint 18/19	Sprint 19	

ramamani yeleswarapu

• Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
ICN-1 Metal3 Baremetal Operator in ICN Stack IN PROGRESS	ICN-225 Nested K8s remote access use case IN PROGRESS	Sprint 12		
	ICN-261 Create and test end-to-end verifier script for virtlet remote access use case DONE	Sprint 12	Sprint 12	
	ICN-262 Create new ansible playbook for bpa in KuD for remote access use case DONE	Sprint 12	Sprint 12	
	ICN-291 KUD patches for nestedk8s IN PROGRESS	Sprint 14		
	ICN-292 ICN patch for nestedk8s changes IN PROGRESS	Sprint 14		

Cheng Li

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
ICN-190 E2E usages for SDWAN module in ICN to support multiple cluster communication through security WAN intertaces TO DO	ICN-209 SDEWAN CRD definition DONE	Sprint 9	Sprint 9	
	ICN-210 MWAN3 rule CRD definition DONE	Sprint 9	Sprint 9	
	ICN-205 SDEWAN Operator Framework DONE	Sprint 10/11/12	Sprint 12	
	ICN-260 Firewall CRD definition DONE	Sprint 12	Sprint 12	
	ICN-212 Sdewan CRD re-design DONE	Sprint 13	Sprint14	
	ICN-220 Sdewan controller framework DONE	Sprint14/15	Sprint 17	
	ICN-230 Extract similar logical of CRD controllers DONE	Sprint 17	Sprint 17	Postpone to R3.1
	ICN-268 implement label based permission system, phase one DONE	Sprint 18	Sprint 18	Postpone to R3.1
	ICN-269 implement label based permission system, phase two DONE	Sprint 19	Sprint 19	Postpone to R3.1
	ICN-270 Sdewan firewall controller implementation DONE	Sprint 13	Sprint 19	Postpone to R3.1
	ICN-280 Add Sdewan firewall CRD DONE	Sprint 13	Sprint 19	Postpone to R3.1
	ICN-301 EWAN Firewall CRD /Rest API integration DONE	Sprint 13		Postpone to R3.1
	ICN-312 PoC for integration scenario DONE	Sprint15	Sprint15	
	ICN-314 SDEWAN E2E test scenario integration DONE	Sprint16	Sprint17	

Akhila Kishore

◦ Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-217 - KuD R3 Release works IN PROGRESS	 ICN-223 - KuD Clean up Script DONE	Sprint 10		
	 ICN-227 - KuD lighting talk presentation DONE	Sprint 11		
	 ICN-186 - Integrate QAT device plugin to KuD add-ons. DONE	Sprint 11/12		

Le Yao

◦ Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-217 - KuD R3 Release works IN PROGRESS	 ICN-260 - KUD Multi Vagrant 18.04 issue DONE	Sprint 11/12/14/15	Sprint 15	
	 ICN-281 - Vagrant vm can not get correct name server in ubuntu-1804. DONE	Sprint 11	Sprint 11	
	 ICN-286 - Installer vm cannot install nts because of nameserver issues. DONE	Sprint 12/14/15	Sprint 15	
	 ICN-286 - All other VMs are unreachable for Installer VM DONE	Sprint 12	Sprint 12	
	 ICN-303 - Compute01 no spcae left in KUD Multi Vagrant DONE	Sprint 12	Sprint 12	
	 ICN-316 - Vagrant Box Build with base Ubuntu-18.04 for ICN DONE	Sprint 13	Sprint 13	
	 ICN-308 - Upgrade the Kubespray 2.12 for KUD DONE	Sprint 16/17/18/19	Spring 19	
	 ICN-327 - criproxy failed to start up after node reboot DONE	Sprint 16/17	Sprint 17	
	 ICN-326 - Vagrant Virtlet testing not working in proxy testings DONE	Sprint 16	Sprint 16	
	 ICN-327 - QAT device plugin deploy issue DONE	Sprint 18/19/20	Sprint 20	
	 ICN-367 - KUD CI Folder installer DONE	Sprint 18/19	Sprint 19	
	 ICN-377 - Catch the cnf Pod no IP error DONE	Sprint 19	Sprint 19	
	 ICN-378 - Add watch function for cnf deployment and CR DONE	Sprint 19	Sprint 19	
	 ICN-380 - Apply watch to all controllers and test DONE	Sprint 19	Sprint 19	
	 ICN-354 - Fix ICN node reboot issue for the containerized version DONE	Sprint 19/20		
	 ICN-393 - Create CNF helm chart DONE	Sprint 20		
	 ICN-394 - Create helm chart for ICN SDEWAN controller DONE	Sprint 20		

Liang Ding

 **ICN-296** - add CMK support in multicloud/k8s KuD IN PROGRESS

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-217 - KuD R3 Release works IN PROGRESS	 ICN-296 - add CMK support in multicloud/k8s KuD IN PROGRESS			

Ruoyu Ying

◦ Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-190 - E2E usages for SDWAN module in ICN to support multiple cluster communication through security WAN interfaces TO DO	 ICN-242 - Investigate IPSec implementation in strongswan DONE	Sprint 11/12		
	 ICN-275 - IPSec CRD Design DONE	Sprint 11/12	Sprint 11	
	 ICN-276 - IPSec RESTful API Design DONE	Sprint 11/12	Sprint 11	
	 ICN-280 - IPSec CRD and REST API implementation DONE	Sprint 18	Sprint 18	
	 ICN-312 - PoC for integration scenario DONE	Sprint15	Sprint15	
	 ICN-314 - SDEWAN E2E test scenario integration DONE	Sprint16	Sprint17	
	 ICN-300 - SDEWAN end-to-end scenario with CRD & controller DONE	Sprint19	Sprint19	
	 ICN-376 - Enable end-to-end test scenario in bare-metal DONE	Sprint20/21		
	 ICN-373 - SDEWAN CNF: enable VTI router based IPSec DONE	Sprint21/22		
	 ICN-414 - Demos to showcase sdewan functionalities DONE	Sprint23/24	Sprint 23	
	 ICN-451 - Investigation on BGP /OSPF support IN PROGRESS	Sprint 26/27		

Matt Welch

◦ EdgeX Foundry install with KUD and demo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-239 - Install EdgeX Foundry using KUD, with tests and usage demo IN PROGRESS	 ICN-229 - Create test to verify edgeX foundry services DONE	Sprint 14	Sprint 14	
	 ICN-237 - Create demo for EdgeX Foundry IN PROGRESS	Sprint 14		
	 ICN-304 - Convert EdgeX docker compose files into K8s deployments IN PROGRESS	Sprint 14		
	 ICN-324 - Document EdgeXFoundry docker-compose process in Wiki IN PROGRESS	Sprint 14		

- OpenNESS 19.12 evaluation
- OpenNESS gap investigation for ICN integration
 - Network Policy
 - Cross-Node communication
 - OS (Ubuntu 18.04)
 - DNS
 - Security

Chenjie Xu

Epic	Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-191 - Integration OpenNESS with ICN TO DO	☒ ICN-213 - OpenNESS gap for Network Policy DONE	Sprint 9	Sprint 9	
	☒ ICN-232 - OpenNESS gap for OS (Ubuntu) DONE	Sprint 10	Sprint 10	
	☒ ICN-333 - OpenNESS gap for Cross-Node communication DONE	Sprint 10	Sprint 10	
	☒ ICN-245 - OpenNESS gap for DNS DONE	Sprint 10	Sprint 10	
	☒ ICN-246 - OpenNESS gap for Security DONE	Sprint 10	Sprint 17	
	☒ ICN-378 - Investigate Openness integration for multus, sriov, nfd, bios, fpga, cmk, topology manger DONE	Sprint 12	Sprint 12	
	 ICN-277 - Openness_deployer PR in ICN tool folder DONE	Sprint 12	Sprint 17	
	☒ ICN-287 - Develop test cases for multus, sriov cni, sriov network device plugin, nfd, CMK, topology manager DONE	Sprint 12/13	Sprint 17	
	☒ ICN-288 - Integrate eaa via onap4k8s DONE	Sprint 12/13	Sprint 17	
	☒ ICN-332 - Ensure that EAA supports distributed applications DONE	Sprint 15/16	Sprint 17	
	☒ ICN-333 - Investigate OpenNESS 20.03 IN PROGRESS	Sprint 16		
	☒ ICN-340 - Integrate Topology Manager IN PROGRESS	Sprint 16		