

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

• Todo

Epic	JIRA Story	Sprint/Estimated Completion Date	Status/Actual Completion Date	Notes
 ICN-214 - DCM dev works DONE	 ICN-236 - Install 2 Istio control planes in one cluster DONE	Sprint 10	Sprint 11	
 ICN-214 - DCM dev works DONE	 ICN-199 - Ramp up DCM DONE	Sprint 10	Sprint 11	
 ICN-3 - Binary provisioning Agent controller IN PROGRESS	 ICN-173 - BPA controller to throw error if the same hosts in multiple provisioning CR DONE	Sprint 9	Sprint 10	
	 ICN-266 - Modify Istio to use different suffix IN PROGRESS	Sprint 13	Sprint 14	
	 ICN-292 - Write DCM code to read from database DONE	Sprint 13	Sprint 14	
	 ICN-304 - Ramp Up on Mongo DB GO API DONE	Sprint 13	Sprint 13	
	 ICN-306 - Ramp up on Resource Synchronizer Library DONE	Sprint 14	Sprint 14	
	 ICN-325 - Install istio on multiple namespaces IN PROGRESS	Sprint 14		
	 ICN-326 - Figure out how to create user using ONAP4k8s resource sync TO DO	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	

• SD-EWAN CRD definition

• MWAN3 CRD definition

• SD-EWAN operator

- Frame work
- Creat e SD-EWA N CNF based on SD-EWA N CRD

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-388 - 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-390 - 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		