

Open RAN Minimum Viable Profile

Ojas Choksi
ATIS MVP Principal Technologist



NTIA Policy Drivers: Value of Open RAN

- > The current 5G equipment market is concentrated in a few suppliers with global domination by certain suppliers that pose a serious security threat
- > NTIA's objective is to leverage Open RAN to create a more innovative and diverse supply chain both in North America and across the globe

MVP as Market Stimulus

Enables
**Supplier
Diversity**
by establishing
baseline MNO
requirements

Facilitates
interoperability
and reduce
friction
associated
with
**multi-vendor
deployments**

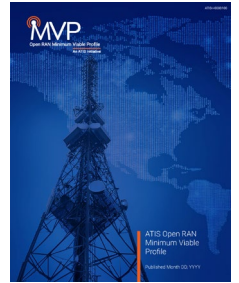
Accelerates
Open RAN
development
and
“carrier grade”
Deployments
in U.S. and other
countries

Provides
impetus
for
innovation

MVP Goals and Scope

- > MVP Goals:
 - > Stimulate the North American Open RAN Market by establishing a minimum common set of MNO requirements
 - > Reduce friction associated with multi-vendor deployments due to implementation of incompatible feature subsets
 - > Build on established industry work by aligning to existing specifications
- > Scope:
 - > Architecture
 - > Feature and functional capabilities
 - > Performance requirements that meet MNO needs
 - > Interface requirements and profiles to facilitate interoperability (in December 2024 update)

From Concept to Delivery



2023 / 2024

Deliberations between NTIA and MNOs identify the creation of an Open RAN MVP as a valuable accelerator for Open RAN

Jan '24 / Feb '24

ATIS MNO members advance proposal to ATIS

- > Diverse membership
- > Trusted partner on industry-leading initiatives such as Next G Alliance (6G)
- > 3GPP Organizational Partner
- > Established MoU with O-RAN Alliance

Feb '24 / Mar '24

ATIS works with MNOs and NTIA to develop MVP goals, scope and roadmap to meet the short, critical, timeline

Invited participants

- > March 7, 2024 launch

Mar '24 to Sept '24

Intensive industry work creates first MVP release 7 months after project start

Participants (By Invitation)

Mobile Network Operators



Vendors



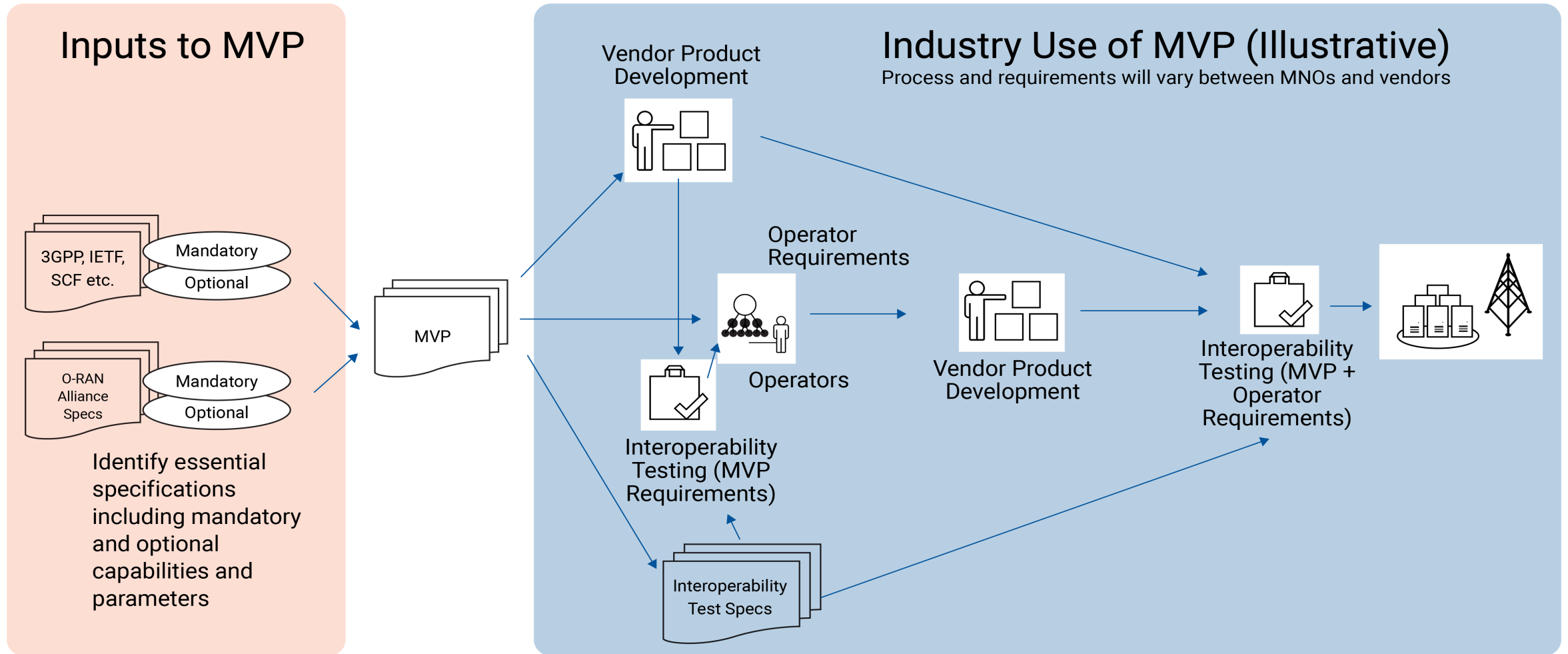
Government



U.S. Department of Defense



MVP Stakeholders and Use



MVP Content

Architecture

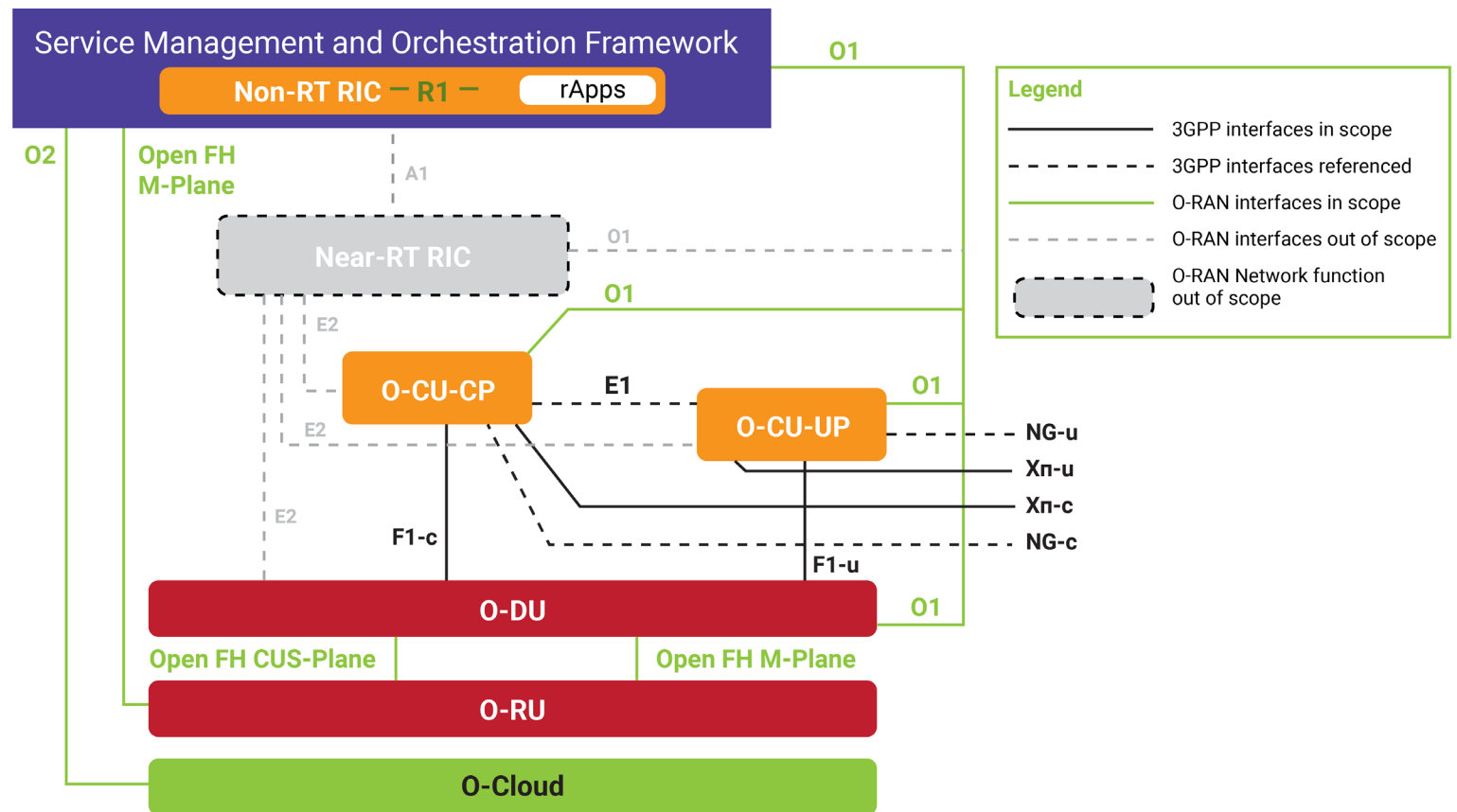
**Functional/
Feature
Capabilities**

Performance

Security

MVP Architecture

- > Focused on 5G SA deployment using outdoor macro/micro cells
- > Operators are still evaluating how to leverage Near-RT RIC, and continue to monitor development of applicable E2 services
- > O-Cloud and SMO are fundamental for enablement of RAN functions (O-RU, O-DU, O-CU) and operators would very much like further progress to be made on the O2 and O1 interfaces



MVP Functional/Feature Capabilities

- > Includes a subset of radio access related feature/function capabilities specified in 3GPP Rel-16 and Rel-17



- > Includes subset of O-Cloud and SMO requirements specified in O-RAN Alliance

MVP Performance Requirements

- > Includes performance metrics, value ranges*, and references to test methods/configuration:

Accessibility	Retainability	Throughput	Latency
RF	Capacity	Availability	Services-related (e.g., VoNR, etc.)

* Value range is specified for a subset of performance metrics

MVP Security Requirements

Includes security requirements for specific Open RAN network functions:

- > O-RU, O-DU, O-CU, O-Cloud, SMO

Includes transversal requirements

References best practices articulated by federal agencies for guidance

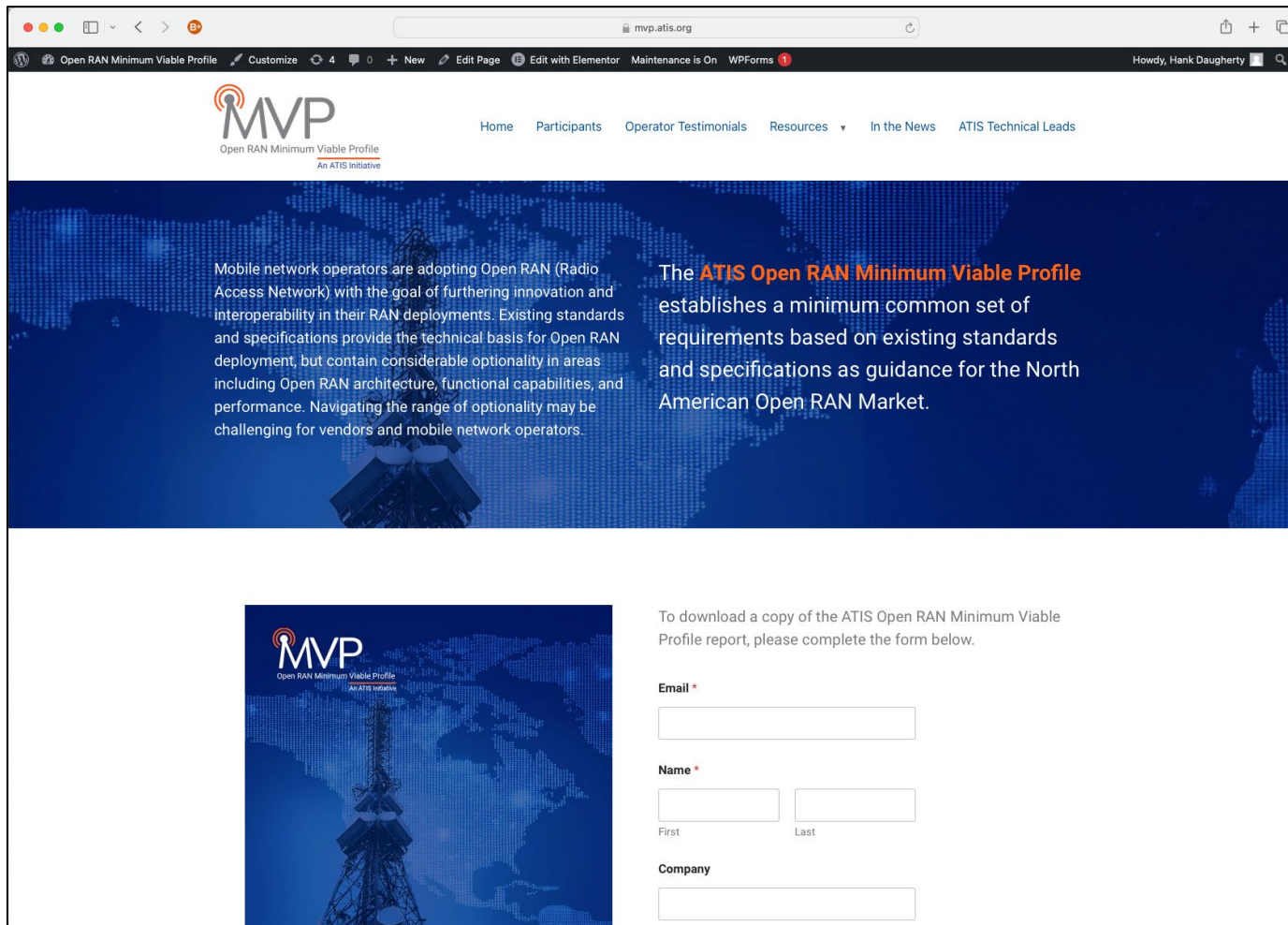
Next Steps

- > Target next phase of the MVP for December 2024
 - > Update MVP with interface specific requirements

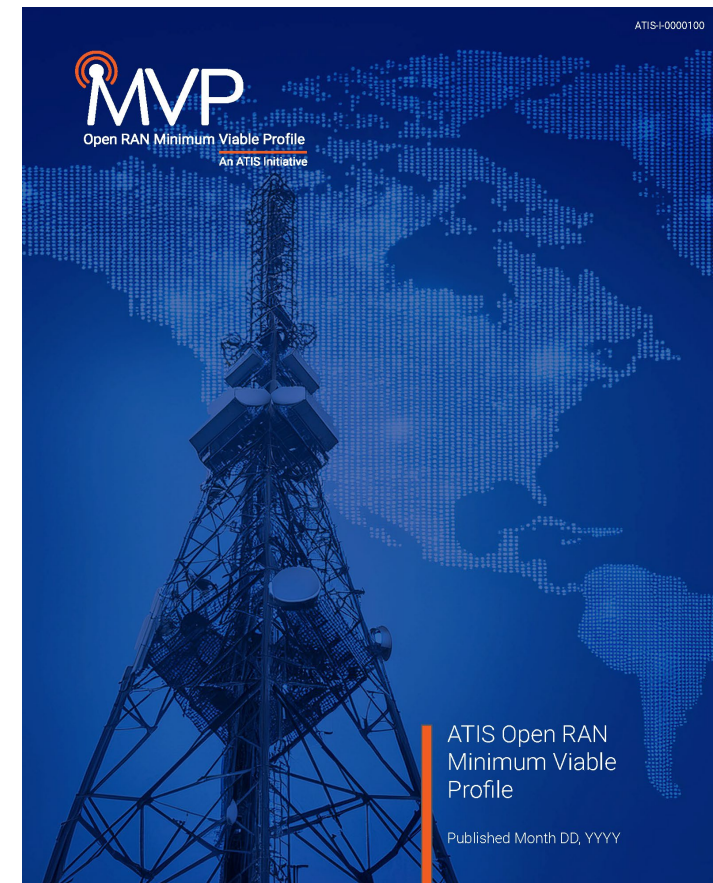


- > Ultimately leverage MVP to meet ecosystem goals and needs

Get The MVP



The screenshot shows the MVP website homepage. At the top, there is a navigation menu with links for Home, Participants, Operator Testimonials, Resources, In the News, and ATIS Technical Leads. The main content area features a large blue banner with a world map background and a radio tower. The banner text reads: "Mobile network operators are adopting Open RAN (Radio Access Network) with the goal of furthering innovation and interoperability in their RAN deployments. Existing standards and specifications provide the technical basis for Open RAN deployment, but contain considerable optionality in areas including Open RAN architecture, functional capabilities, and performance. Navigating the range of optionality may be challenging for vendors and mobile network operators." To the right of this text, it states: "The **ATIS Open RAN Minimum Viable Profile** establishes a minimum common set of requirements based on existing standards and specifications as guidance for the North American Open RAN Market." Below the banner, there is a form to download the MVP report. The form includes a small MVP logo, a text prompt: "To download a copy of the ATIS Open RAN Minimum Viable Profile report, please complete the form below.", and three input fields: "Email *", "Name *", and "Company". The "Name" field is split into "First" and "Last" sub-fields.



The image shows the cover of the MVP report. It features a blue background with a world map and a radio tower. The MVP logo is prominently displayed at the top left. Below the logo, it reads "Open RAN Minimum Viable Profile" and "An ATIS Initiative". In the bottom right corner, the text reads "ATIS Open RAN Minimum Viable Profile" and "Published Month DD, YYYY". The ATIS-0000100 ID is visible in the top right corner.

> mvp.atis.org

