referred to as O-Cloud (hereinafter referred to as O-Cloud for convenience) that virtually manages a set of a plurality of radio access network nodes (RAN nodes) is provided.

[0004] Patent Literature 1: JP-A-2021-83058

SUMMARY

[0005] The Non-RT RIC is provided in the SMO (Service Management and Orchestration) and generates various instructions to the RAN nodes, the O-Cloud, the Near-RT RIC and the like outside the SMO, through the execution of the rApp. These instructions are issued to the outside of the SMO through various interfaces such as the O1 interface, the O2 interface, and the A1 interface. In the conventional SMO, instructions generated by the rApp are issued to the outside of the SMO with almost no changes, regardless of the target (the RAN node, the O-Cloud, the Near-RT RIC and the like) or the interface (the O1 interface, the O2 interface, the A1 interface and the like). Therefore, there is a risk that rApp executing different tasks or jobs may issue contradicting instructions to the outside of the SMO, wasting resources of the SMO itself or outside the SMO for their execution, resolution, coordination and the like.

[0006] The present disclosure was made in view of these circumstances, and its purpose is to provide a radio access network control apparatus and the like that can efficiently issue instruction generated by the rApp to the outside of the

SMO.

[0007] In order to solve the above issue, a radio access network control apparatus in a certain aspect of the present disclosure comprises at least one processor that performs: by an instruction verification unit provided in the SMO (Service Management and Orchestration) of the O-RAN, verifying instruction to the outside of the SMO generated by the rApp executed by the Non-RT RIC (Non-Real Time RAN Intelligent Controller) in the SMO; and by an instruction issuance unit provided in the SMO, issuing the verified instruction to the outside of the SMO.

[0008] According to an example, before the instruction issuance unit provided in the SMO issues instruction of the rApp to the outside of the SMO, the instruction verification unit provided in the SMO verifies the instruction. As such, among instructions generated by the rApp, the instruction that has been verified by the instruction verification unit is efficiently issued to the outside of the SMO by the instruction issuance unit.

[0009] Another aspect of the present disclosure is a radio access network control method. The method comprises: in the SMO (Service Management and Orchestration) of the O-RAN, verifying instruction to the outside of the SMO generated by the rApp executed by the Non-RT RIC (Non-Real Time RAN Intelligent Controller) in the SMO; and in the SMO, issuing the verified instruction to the outside of the SMO.