

ClassNK

Innovation Endorsement

for Products & Solutions

Document No: 24VT03000

THIS IS TO CERTIFY that the undernoted product has been examined and found in order in accordance with manufacturer's specification.

This certificate is issued to

Manufacturer : Navarino Single Member S.A.

Place of manufacturing : Piraeus, Greece

Product descriptions:

- 1) Fully customisable networking features
- 2) Web proxy capabilities
- 3) Email services
- 4) VoIP services
- 5) Virtual Machines hosting and management
- 6) File sharing and synchronization capabilities

Cyber security descriptions^{*1}:

Identification feature:

- 1) Dynamic collection of connecting solution's components

Protection features:

- 2) Firewall
- 3) Network segmentation
- 4) DNS, Web and Email filtering

Recovery features:

- 5) Infinity Virtual Machine restoration
- 6) Networking
- 7) Customer's virtual machines



Product name : Infinity

Version No. : Ver. 3

^{*1} Both part X of Class NK Rules for Survey and Construction of Steel Ships and IACS UR E27 Rev1 are not certified or implied hereby.

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 12th July 2024.



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General Manager

Technical Solution Department

1. Definition of “Product Description”

- 1) Infinity provides core networking features like firewall, routing, DNS, VLAN, VPN, DHCP, NTP, QoS. All of them are provided with high degree of freedom offering highly customisable configuration to cover every need.
- 2) The Infinity Web Proxy mechanisms provide the capability to design and apply policies per User(s), on-board network, or Internet provider.
- 3) Infinity Email services supports Infinity Mail Plus service as third-parties email providers. Also provides custom transfer policies, filtering by content or email attributes and Email-to-Fileshare (automatically save attachments to shared directory)
- 4) Infinity comes with on-board PBX service covering the need for voice communication with the shore. Fully customisable supporting SIP, IAX, softphones and hardware VoIP terminals and a plethora of codecs.
- 5) Infinity is capable to host customer's Virtual Machines providing a fully managed interface for the resources like CPU, RAM, disk and networking. Also provides backup and restore mechanisms
- 6) File sharing and synchronization from shore-to-vessel and vice versa can be easily configured via Infinity's portal.

2. Definition of “Cyber security descriptions”

- 1) Infinity provides a comprehensive list of connecting solution's components helping the IT team of customer to easily detect each component on-board.
- 2) Using the highly configurable firewall capabilities the vessel can be protected from malicious traffic towards sensitive or private services hosted on-board.
- 3) By making use the support of VLAN, customers can create virtual dedicated networks for hosts to be members. By this segmentation only well defined groups of hosts can communicate with each other mitigating the risk of attacks.
- 4) Filtering mechanisms are applied on each of these critical services. The customer can define block and/or allow lists based on domains or IPs

- 5) By design all the needed configurations is shore-driven, so, in the rare occasion where Infinity Virtual Machine stops working as expected there are mechanisms to restore it in a matter of minutes.
- 6) The network setup of the vessel is part of solution’s configuration, by that in case of failure of network components, like switches for example, the restore of the configuration can be easily take place, leaving to the crew only the job of plugging the cables back to the working component.
- 7) Using the backup and restore capabilities of Infinity solution customers can easily restore their servers

3. Documents examined

No.	DWG. TITLE
1.	infinity_solution_diagram_v1.4.
2.	Infinity-Administration-Manual-02-08-R01.
3.	Networking Features
4.	Email Services
5.	Infinity provides software PBX
6.	components_list
7.	firewall_setup_01
8.	vlan_setup_01.png, vlan_setup_01
9.	dns_filtering_01.png, web_filtering.png, email_filtering

4. Limitations

This certificate is issued upon confirmation of the functions of the product as specified in the product description & the cyber security descriptions proposed by the applicant and defined in the above 1 and 2, by review of the documents listed in the above 3 and witness of the functional confirmation tests.

Therefore, it does not intend to apply for any approval or survey of the product for the purpose of classification registration or to ensure the validity of the output of the product.

Neither the Society nor any of its officers, directors, employees, agents or sub-contractors shall be liable for any loss, damage or expense of whatever nature sustained by any person, in tort or in contract or otherwise, due to any act or omission or error of whatever nature whether or not negligent howsoever caused in the provision of services, information or advice given in any way whatsoever by or on behalf of the Society.

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