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Cynny Space Cloud Object Storage integrated with Network Intelligence platform Vegoia

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The aim of this presentation is to show how Cynny Space cloud object storage solution integrates with Vegoia, a new Network Intelligence platform.
The presentation will outline the following topics:

1) Cynny Space cloud object storage
The object storage solution is the first storage built on fully-equipped ARM® based micro-servers. Thanks to 1:1 micro-server to storage unit ratio and the SwARM File System optimized for ARM® architecture, the solution delivers optimal levels of scalability, resilience, reliability, and efficiency. Every storage node is fully independent and interchangeable, providing a storage solution with no single point failure and very high durability levels (99,999999999%). To maximize the parallelization of the operations, every node is responsible for some chunks (and not the whole file). The use of Dynamic Hash Tables and a distributed Swarm Intelligence on a peer-to-peer network minimizes the cooperation overhead and allows a high level of scalability, fault-tolerance, and clusterization. The solution is API S3 compatible natively and accessible via NFS and SMB gateways.

2) Network Intelligence applications
Network Intelligence is a fundamental support for professionals operating in network management and defense because network awareness opens up to a safe and informed network control. Vegoia platform is a complete solution that can be applied in a wide range of applications where an accurate knowledge of traffic and apps is necessary: cybersecurity, network operation, maintenance and troubleshooting, business intelligence and marketing. It has been designed for a good accuracy in the protocol detection and for scalability to cope with high-speed links (10 to 40 Gbps) and can be configured both as a virtual probe (for statistics and punctual analysis, troubleshooting) or for an active role with user accounting and policing.

3) What is Vegoia: a new Network Intelligence platform
Vegoia is a Network Intelligence platform based on a Deep Packet Inspection (DPI) library and a multi-core modular engine used to analyze and classify in detail the network traffic. The engine performs the DPI operating through dissectors making the protocol parsing on standard protocols, while Machine Learning algorithms are applied where there are proprietary protocols and encrypted connections. The platform is not only able to detect the protocols but even the applications, producing a multi-layer, real-time classification with special reference to the smartphones apps (social, web, mail, ···). Results are stored in form of tickets that describe each flow and connection. They can be manipulated by means of Big Data techniques, so providing statistics and analytics, alarms, ...

4) The Vegoia and Cynny Space cloud storage integration use case
From the partnership between Cynny Space and the Vegoia designers , an integrated solution has been developed to join together the two technologies. In fact, since the DPI solution has the need to store a huge amount of data traveling at high speed the cloud storage model is particularly suitable for the purpose. The architecture of the integrated system and the available results will be presented during the CS3 conference.
A demo will be available for visitors at Cynny Space's desk during the conference.

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Session Classification: Scalable Storage Backends for Cloud, HPC and Global Science

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