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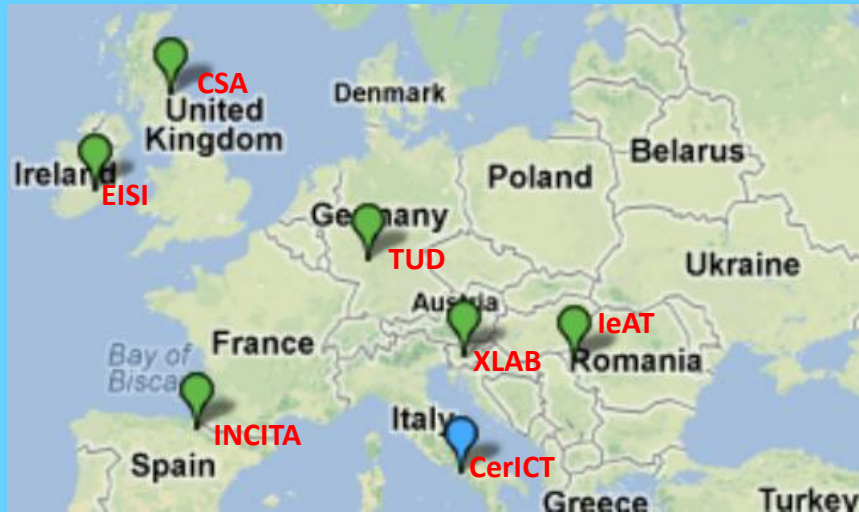
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Period:

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Costs:

Total costs – 3.8 Mil €
EC contribution – 2.4 Mil €

**Partners:**

Secure Provisioning of Cloud Services based on SLA Management

www.specs-project.eu



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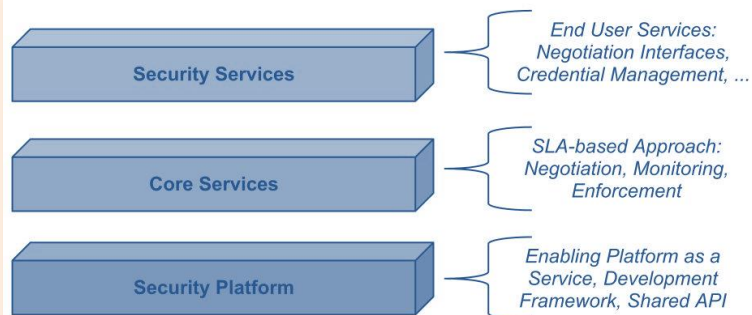
Aim

Developing and implementing an open source framework to offer Security-as-a-Service, by relying on the notion of security parameters specified in Service Level Agreements (SLA), and also providing the techniques to systematically manage their life-cycle.

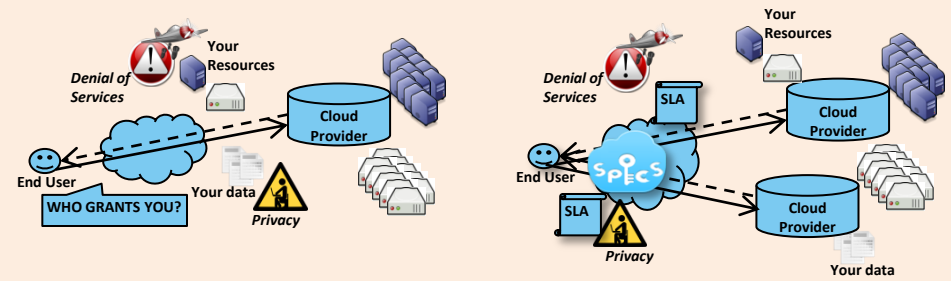
SPECS framework provides techniques and tools for:

- Enabling a user-centric **negotiation** of security parameters in Cloud SLA, along with a trade-off evaluation process among users and CSPs, in order to compose and use Cloud services fulfilling a minimum required security level (QoSec or Quality of Security).
- Monitoring** in real-time the fulfillment of SLAs agreed with one or more CSP. SPECS' monitoring services also enable notifying both users and CSPs, when a SLAs not being fulfilled (e.g., due to a cyber-attack).
- Enforcing** agreed Cloud SLA in order to keep a sustained QoSec that fulfills the specified security parameters. SPECS' enforcement framework will also "react and adapt" in real-time to fluctuations in the QoSec by advising/applying the correct countermeasures (e.g., triggering a two-factor authentication mechanism).

SPECS Platform The stack



Before and After



Interaction Models

- Hosted Platform buy resources from Cloud Provider
Offer (Security) Services to End Users
Buy/Broker resources from Cloud for end user
- Hosting CSP has its own resources
Add Security to its Services for End Users
Cloud Bursting
- End User Platform buys resources from Cloud
End User improves security on the target services
Buy resources from Cloud