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CloudAssisted Services

c3e: The answer to two European challenges

Unleashing the Potential of Cloud Computing in Europe

Delivering towards the goals of the Grand Coalition for Digital Jobs

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c3e - Certified Cloud Computing Engineer

The answer to two European challenges

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1 - Unleashing the Potential of Cloud Computing in Europe

This document, prepared by the European Commission for the European Parliament and Council in September 2012 states:

- **Cloud computing has substantial economic potential.** First cloud computing **reduces the overheads** of operating computer systems. Second **considerable gains** are also likely from **service innovations** and the adoption of **new organisational processes** that increase efficiency.
- Among the main claims of cloud computing is that it potentially **leads to significant energy savings** due mainly to the fact that is based on the flexible and scalable use of IT-resources.
- Cloud users said they had made **savings** typically in the range **10-20% of IT cost**. **Business benefits** do not stop at cost savings. Users cite more **effective mobile working**, higher **productivity**, more use of standard processes, better **ability** to enter new business areas and the ability to open up in new locations as expected benefits
- Viewing cloud as a business model and the the impact of cloud computing: first it is **primarily an economic phenomenon rather than a technological one**

and consider the potential of **creation of new jobs** - IDC estimates that in the “Policy-driven” scenario cloud-related workers could exceed **3.8 million**, against some **1.3 million** in the “No Intervention” scenario

2 - Grand Coalition for Digital Jobs

- How to tackle the issue of a projected **shortfall of up to 900,000 ICT professionals** in Europe by 2015
- European E-Skills Manifesto shows that in 2009 the total **number of IT practitioners in Europe** amounted to roughly **3.95 million** according to the core definition, approx. **4.78 million** according to a broader definition. Their number has more than doubled since 1995.
- Considering only the potential of **creation of new jobs**, IDC estimates that in the “Policy-driven” scenario cloud-related workers could exceed **3.8 million**, against some **1.3 million** in the “No Intervention” scenario
- The goal of certification is to stimulate take-up of a **single European certification scheme for digital skills of ICT practitioners**, based on **European quality labels** for ICT industry based training and certifications and the European **e-Competence Framework**, so as to improve **ICT professionalism** and recognition of qualifications across countries, including recognition of skills which have been acquired informally

c3e - Addressing the widening knowledge gap

- As cloud computing is increasingly being used inside Europe's companies and organisations, the system engineers, administrators and developers are facing a **need for knowledge&skill refresh or upgrade**. Considering the **speed of development of cloud computing technologies** IT professionals are facing a knowledge gap, which is widening
- Do the IT professionals really need this new knowledge?
 - Yes -when it comes to the »cloud« - **let there be no mistake: the cloud is only as good as are the skills of system engineers and administrators, who are managing and operating it**. As does the IT infrastructure, sitting in company's datacenter, need attendance, so do servers and applications in the cloud.
- It is a fact, that cloud technologies **reduce IT infrastructure management burden** and make it more effective – **however the issues did not disappear**
 - Cloud technologies only enable the **IT professional to have more time available to focus on user needs** – which have too often been neglected.

C3e: The answer to two European challenges



c3e - Addressing the widening knowledge gap

- The »c3e« project goes back to 2009 and is from the delivery point of view **based on 15 years of international experience in technical training for IT professionals**
- It was designed with the European perspective in mind – **initially for the needs of European system engineers, administrators** - and later developers.
- **Vendor-neutral design**: in order for skills to be **transferrable** and as **universal** as possible, the »c3e« approach is vendor neutral, while still **practical** enough to bring immediately applicable knowledge and skills
- Considering the wide body of knowledge comprising cloud-computing, the »c3e« is in the first place **designed for the needs and typical work profile of system engineer** or administrator, responsible for IT infrastructure **in a small-to-medium size company (SME)**
- At the same time, it provides a **smooth integration path** into more specialised cloud certifications, allowing the individual engineer to advance in his career easily.

C3e: The answer to two European challenges



c3e - Addressing the widening knowledge gap

Several European Union guidelines and recommendations were used or observed within »c3e« development process such as **Cefedop** material or for example

- **European e-Competence Framework**
- European qualifications framework (**EQF**)
- the classification of skills/competences, qualifications and occupations (**ESCO**)
- European Certification of Informatics Professionals - **EUCIP**

»c3e« supports the objectives of:

- fostering the ICT Profession in Europe
- European Cloud partnership
- or e-skills for 21st century



c3e – What is next?

- Seeking partners in European Union to:
 - **Extend** work on courseware content
 - **Verify** the course content
 - **Translate** the course content
 - **Promote** the „c3e“ certification
 - **Deliver** training, based on „c3e“ curriculum
- c3e - Certified Cloud Computing Engineer – technical training and certification, which is addressing the widening knowledge gap:
 - towards the **single European certification scheme** for digital skills of ICT practitioners, working in the cloud
 - learning on the **EUCIP example and advancing the concept** into cloud technologies