

IT internship / Java Development: Disaster Recovery Solution Implementation

Implementation of a Disaster Recovery Solution

Telemis is a medical equipment company specialising in PACS/MACS solutions, digital pathology, and Business Intelligence for the healthcare sector. Our products assist healthcare facilities, private practices, and so on, in the efficient management of medical imaging and health data. At Telemis, we foster a close-knit atmosphere where mutual support and spontaneous collaboration are the norm.

Project Objective

The objective of the project is to analyse the feasibility of a solution that allows for the rapid reinstallation of a Telemis site after a crypto-virus attack that has rendered the system non-operational and requires a fast partial or complete reinstallation. The student will need to identify the critical data to be backed up and develop the tools to assist in service restoration, as well as define the associated procedures based on the existing components of the Telemis architecture.

Context

The Telemis PACS allows for the storage and distribution of medical imaging within a hospital institution. This system is based on a distributed multi-server architecture. In the event of a service interruption, radiologists can no longer easily analyse images, which has a direct impact on patient health. During cyber-attacks, parts or the entirety of the system and data may be affected. It is therefore necessary to be able to restore service as quickly as possible. This requires the implementation of proactive tools, the backing up of certain critical data, and tools to assist in service restoration.

Placement Objectives (adapted based on duration and skill level)

- Analysis of a typical installation of the Telemis PACS and its components.
- Identify the essential configurations and data for service restoration.
- Define a rapid recovery procedure taking into account the multi-server architecture and various scenarios (ranging from one affected component up to a complete reinstallation).

- Identify and develop the additional tools needed for reinstallation/deployment.
 - Identify and develop the additional tools needed for configuration re-integration.
 - Identify and develop the additional tools needed for data re-importation.
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Required Skills

- Java or another scripting language
 - IT / Windows
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What the Placement Student Will Gain from This Experience

- Discovery of a medical imaging management system and its implementation on a production site.
 - Definition of a Disaster Recovery strategy.
 - Useful and reusable experience in Java development or other languages.
 - Participation in an active fight against cybercrime and patient assistance.
 - The opportunity to contribute to a project genuinely used in production.
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Profile

- Student in Computer Science, Telecommunications, or Software Development.
- Inquisitive, structured, and motivated by tangible technical challenges.
- Proficient in Java or keen to rapidly improve their skills.
- Proficient in IT management or keen to rapidly improve their skills.