Pragmatic Consult A/S

PEM - Pragmatic Environment Management

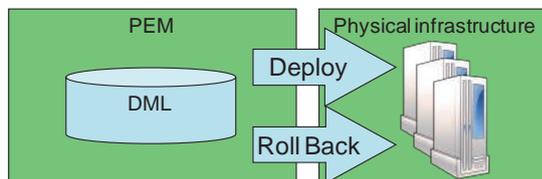### ITIL® Release & Deployment Management with PEM

ITIL® - IT Infrastructure Library – is a collection of Best Practice processes for IT operation. A brief description is on the back of this sheet.

ITIL® Release & Deployment Management

- aims to collect and prepare all parts of new or changed systems and services and to ensure efficient and secure use of these.

Continued professional implementation of Release & Deployment Management adds considerable value to the organisation by optimising speed, risks and costs in connection with changes and by ensuring consistent and well documented implementation of new services requested by the organisation.

Release & Deployment Management covers both preparation and implementation of the components necessary to make new services available; from planning the changes to when the new systems and services go into production.

Release & Deployment with PEM

PEM's DML – Definitive Media Library -, which contains the description of both application architecture and IT infrastructure, also contains the definition of the IT environments you need to change and deploy.

The basic setup and maintenance of environment descriptions take place in the ITIL® process: Service Asset & Configuration Management.

As an authorised user with access to an IT environment definition from PEM's DML, you can deploy the IT environment fully automatically; with one click or unattended at a specified time.

With PEM you can simulate a deployment and in this way verify all prerequisites for a successful deployment. - You can automatically check if servers are up and running, if references for external systems actually refer to running systems, if the databases used are operational etc.

PEM will notify immediately if any of the prerequisites are absent, and then enable you to make quick corrections. When all prerequisites are in place, you can run a new deployment. If the prerequisites for a successful deployment change along the way, e.g. if a server is accidentally turned off, PEM has all the necessary information, to roll back the partly deployed IT environment to the stage before deployment.

PEM generates detailed documentation of the deployment process in real time, so in the event of errors you can correct actions immediately, e.g. a re-deployment or a roll-back to the previous version of the IT environment.

In an infrastructure based on virtual servers, PEM can take a snapshot of an entire environment in less than one minute, i.e. synchronous snapshots are made of all servers in the environment.
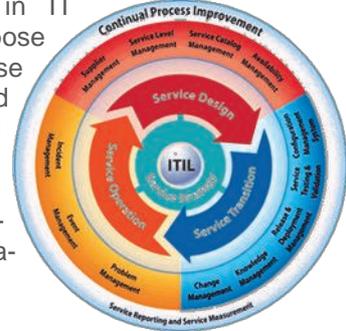
ITIL® - in brief

ITIL® - IT Infrastructure Library – is the most widespread and generally accepted reference for best Practice in IT operation. The purpose of ITIL® is to maximise efficiency, quality and business value and minimise risks for organisations in connection with the execution of IT operational tasks.

With ITIL v.3 all IT operational tasks are divided into five areas: Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement. Each area contains a number of key processes, which in ITIL are defined and broken-down into manageable and implementable elements.

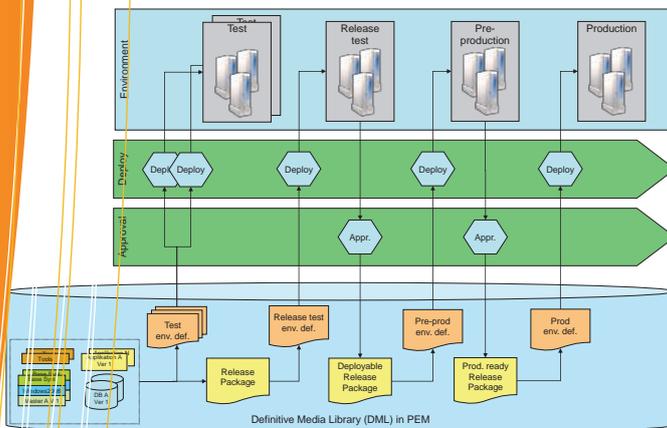ITIL® is described in more detail in a number of publications mentioned here: http://www.itil-officialsite.com

When a snapshot is taken, the version of the environment deployed is registered at the same time. In this way PEM keeps track of what version of the environment actually exists in the physical environment after a roll back to a snapshot. Snapshot at the environment level enables you to roll back an environment in less than a minute if a deployment results in an error in the environment.

Sets of changes are defined as release packages, which are a version-specific sets of CIs that can update an IT environment.

PEM & ITIL®

PEM is a system that implements the important parts of ITIL® areas: Service Transition and Service Operation. In addition, PEM implements parts of the Service Design area. The core in PEM is an ITIL® CMS (Configuration Management System) which has been expanded with a number of advanced functions for logging, supervising, automatic installation, management etc.

PEM is based on an ITIL® DML (Definitive Media Library) which contains Configuration Items, relevant for the central infrastructure.

The release process ensures that changes are brought from the development environment through test and pre-production environments to the actual production environment, all managed by PEM.

Quality assurance of the release process is controlled via formal approvals of a Release Package, after it has been tested and accepted in the IT environments used in the Release Process.

PEM deploys the complete Release Packages so you avoid installing "hotfixes" with increased risk of errors.

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