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CMDB Fundamentals Training

3 days (21 hours)

Presentation

CMDB Fundamentals is a course dedicated to understanding and implementing the basics of a Configuration Management Database. It is an essential foundation for any organization wishing to master its IT ecosystem and reinforce its ITSM and ITIL practices.

Our CMDB Fundamentals course will teach you how to define basic concepts, structure Configuration Items, understand CMDB architecture and apply good governance practices. You'll be guided step-by-step through the process of discovering, mapping and populating a CMDB with reliable, usable data.

You'll also discover how to leverage the CMDB in ITSM processes (incident, change and problem management), and how to turn it into a lever for governance, compliance and operational steering.

At the end of the course, you'll be able to design a CMDB adapted to your organization, ensure the quality of your data and integrate it effectively into your IT workflows.

Like all our training courses, this one is based on recognized best practices in the market, and favors a practical, operational approach.

Objectives

- Understand the basic concepts of a CMDB
- Structure Configuration Items and their relationships
- Discover and populate a CMDB
- Use the CMDB in ITSM processes
- Ensure data quality and conformity
- Draw up a CMDB evolution roadmap

Target audience

- System and network administrators
- ITSM and ITIL managers
- IT project managers
- Support and operations teams

Prerequisites

- Basic knowledge of infrastructure management

CMDB Fundamentals training program

Introduction to CMDB and ITIL concepts

- Defining the CMDB and its role in IT service management
- Differences between CMDB, inventory and repositories
- The place of the CMDB in ITIL and ITSM
- Configuration Items (CIs): definition and typology
- Added value of the CMDB for governance and compliance
- Workshop: Creating a simplified model of CIs and their relationships

CMDB structure and architecture

- Organization into classes, attributes and relationships
- Management of environments : DEV, QA, PROD
- Integration with other ITSM processes (incident, problem, change)
- Examples of CMDB architectures (centralized, federated, distributed)
- Limits and challenges of a CMDB architecture
- Workshop: Designing a basic CMDB architecture for an information system

Governance and best practices

- Defining the scope of a CMDB (which CIs to include?)
- Roles and responsibilities: administrator, configuration manager
- Data management policies and procedures
- Strategies for maintaining data quality
- Good documentation and communication practices
- Workshop: Writing a simple governance plan for a CMDB

Discovering and populating the CMDB

- Manual discovery methods (inventory, audit)
- Automated discovery (agents, APIs, network scanning tools)
- Integration with external sources (AD directory, monitoring, inventories)
- Data synchronization and risk of duplication

- Existing discovery tools (ServiceNow Discovery, Device42, etc.)
- Workshop: Demonstration of automated asset discovery

Modeling and relationships between CIs

- Notion of Service Mapping
- CI-CI relationships (inheritance, dependencies, composition)
- Importance of relationships for impact analysis
- Standard data models (e.g. Common Service Data Model)
- Case studies: mapping a critical application
- Workshop: Building a CI relationship diagram

Using the CMDB in ITSM processes

- Incident management with the CMDB
- Problem and change management
- Configuration and deployment management support
- Using the CMDB for reporting and KPIs
- Concrete examples of ITSM/CMDB integration
- Workshop: Simulating an impact analysis prior to a change

Data quality, integrity and auditing

- Data quality criteria in a CMDB
- Data verification, validation and cleansing
- Integrity rules and discrepancy management
- Audit processes and compliance indicators
- Links between CMDB and regulatory compliance (ISO 20000, ISO 27001)

CMDB supervision and reporting

- Reporting tools and dashboards
- Performance indicators (completeness, accuracy, freshness of data)
- Leveraging the CMDB for decision-making
- Sample compliance and audit reports
- Automated alerts and notifications

Summary and future prospects

- Common pitfalls and limitations of a CMDB project
- Real-life use cases (migration, merger, audit)
- Possible developments: federated CMDB, intelligent CMDB (IA / ML)
- Integration with SIEM, ITOM and monitoring
- Checklist of best practices for an operational CMDB
- Workshop: Drawing up a CMDB evolution roadmap

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT technology, or to acquire specific business knowledge or modern methods.

Positioning at training start

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives with regard to the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical training: 60% hands-on, 40% theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Certification

A certificate will be awarded to each trainee who has completed the entire course.