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Technical Operations in SAP Solution Manager 7.1
Part of Application Lifecycle Management

- **Upgrade Management**
  - Integration of Upgrade Dependency Analyzer
  - Enhanced Custom Code Lifecycle Management

- **Maintenance Management**
  - Enhanced Maintenance Optimizer
  - System Recommendations

- **Business Process Operations**
  - Enhanced BPO Dashboards with Alert Inbox
  - Cross Database Comparison
  - Job Control and Schedule Management
  - Integrated Data Volume Management with Work Center

- **Technical Operations**
  - New Infrastructure for Technical Monitoring and Alerting
  - Technical Administration
  - Technical Analytics
  - Enhanced Root Cause Analysis

- **Application Incident Management**
  - IT Service Management Processes
  - Highly configurable web-client user interface
  - Additional Service document functions

- **Solution Documentation**
  - Enhanced Solution Documentation Assistant
  - Reverse Business Process Documentation and IBIS Content integration
  - Upload interface to build an initial Business Blueprint structure

- **Solution Implementation**
  - Enhanced Business Blueprint
  - Implementing Business Functions
  - Integration with the service messages

- **Template Management**
  - Comparison & Adjustment for Template
  - Roll-in changes from projects

- **Test Management**
  - Enhancement to manage test phases efficiently
  - Test Automation Framework with 3rd party tools
  - Test Scope Identification & Optimization with BPCA

- **Change Control Management**
  - Enhanced Quality Gate Management for various activities
  - Enhanced process flexibility for Change Request Management
  - Improved mechanism for the change and transport backend
  - Configuration Validation and Change Analysis
Technical Operations
What is the process behind…

Monitor

Proactive real-time monitoring
- System, DBMS and Host Monitoring
- End-User Experience Monitoring
- Connection Monitoring
- Process Integration Monitoring
- Business Intelligence Monitoring
- Solution Manager Self Monitoring

Notify

Reactive handling of critical events
- Unified Alert Inbox
- Alert correlation and propagation
- Central Template Maintenance
- Open data provider and alert consumer

Analyze

Lower mean time to problem resolution
- End-to-End Change Analysis
- End-to-End Workload Analysis
- End-to-End Exception Analysis
- End-to-End Trace Analysis

Administrate

Optimize excellence of technical operations
- Task Inbox
- Down Time and Work Mode Management
- IT Calendar
- Notification Management
- Central Tool Access

Technical Monitoring & Alerting

Technical Reporting
- EarlyWatch Alert (for Solutions)
- Interactive reporting
- Customer specific reporting

Management Reporting
- Document based SLA reporting
- Interactive SLA Reporting
- Management Dashboard

Report

Prove value to business
Technical Administration
Which applications are provided...

**Work Mode Management**
- Plan single or recurring work modes for systems, instances, databases
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- Calendar view displaying planned Work Modes for complete landscapes
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- Central Access to basic administration functionality for SAP Netweaver MDM 7.1
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Work Mode Management and SAP IT Calendar
Requirements & Motivation

- Growing landscapes and distributed responsibilities lead to growing requirements towards a Central Work Mode / Downtime Planning approach

- Provide a single point of entry to review up-to-date operational planning data for productive systems

- Reduce the time required for system administration by automation of administrative actions

- Prevent the creation of unnecessary alerts, notifications and incidents during planned system downtimes.
Work Mode Management / IT Calendar Scenario

Plan
Central planning of single and recurring work modes

Review
Review inactive and active work modes in IT Calendar

Notify
Notify end-users about planned system downtimes

Automate
Suppress alerts during planned downtimes
Define Work Mode specific metric settings

Execute
Stop and Start ABAP and Java systems centrally from Work Mode Management during planned downtimes

Report
Optimize planning by comparing planned vs. reality
Work Mode Management allows planning and maintenance of Work Modes for Technical Components

- The following types of work modes are supported
  - Planned Downtime
  - Maintenance
  - Peak Business Hour
  - Non Peak Business Hours
  - Non Business Hours
- Single and Recurring Work Modes can be scheduled
- Spurious alert suppression during downtimes is supported
- Planned Downtimes can be notified to target users based on a pre-determined pattern
- Mass copy of Work Modes across Technical Components can be performed
- Work Modes can be scheduled for Technical Scenarios, Technical systems, Instances, Databases, Logon Groups
- Work Mode management supports the system types “ABAP” and “Java”
Supported Work Modes

- **Planned Downtime**
  System is technically down and End-user have no access. System Administrators can use the planned downtime to execute planned administration tasks that can only be executed during downtimes.

- **Maintenance**
  System is technically up and the End-user have no access. System Administrators can use the maintenance to execute planned administration tasks that can only be executed during Maintenances.

- **Peak Business Hour**
  System is technically up and the End-user have access. Majority of end-users are logged in to the system and Load peaks are expected.

- **Non Peak Business Hours**
  System is technically up and the End-user have access. Majority of end-users are logged in to the system. Load peaks are not expected.

- **Non Business Hours**
  System is technically up and the End-user have access. Majority of end-users are not logged in to the system and Load peaks are not expected.
Technical Monitoring can be configured to react on Work Modes

- **Globally:** Users can maintain work mode specific settings for monitoring. For each work mode it is possible to define whether monitoring is enabled or not.

- **On template level:** Users can define whether the automatic creation of notifications or incidents is active or not per work mode. (valid for System Monitoring only)

- **On metric level:** Users can define whether the measurement of individual metrics is active or inactive per work mode. (valid for System Monitoring only)
Work Mode Management – Integration with Technical Monitoring

- System Monitoring shows the current work mode of managed systems

- System Monitoring takes into account the current work mode and work mode specific settings to determine whether
  - Monitoring is active
  - Metrics are active
  - Notifications shall be send, incidents created

- End-User Experience Monitoring, BI Monitoring, PI Monitoring, Connection Monitoring take into account the current work mode to determine whether Monitoring is active
Work Mode Management – Integration with CCMS

In addition to the new Technical Monitoring use case, Work Mode Management is also integrated with CCMS:

- CCMS Monitoring is Downtime – sensitive.
- Behavior of CCMS monitoring during planned downtimes is configurable during downtime planning.
Work Mode Management provides several reports to check accuracy of past and to improve future planning

- **Downtime Reporting** allows to easily identify whether planned downtimes have been used and whether downtimes occurred outside downtime planning window.

- **Average Component Usage** supports the planning of peak/non-peak business hours by showing day profiles for several performance metrics. This allows to determine time slots when peak/non-peak system load occurred in the past.

- **Planned Downtime Analysis** shows an overlay of measured system downtimes with planned system down times thus allowing to identify times when downtimes occurred outside the planning interval.

- **Work Mode Analysis** shows an overlay of measured performance metrics with past work modes times thus allowing to verify the accuracy of past work mode planning.

- **Compare with System Load** allows to overlay day profiles for performance metrics for past weeks with future planned work modes to support the accurate planning of future work modes based on past performance data.
## Demo

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IT Calendar - Features

IT Calendar provides an overview of the planned Work Modes for selected times intervals and technical components

- Month, Week and Day views are supported
- Easy navigation between different views
- Display of work modes for several technical components (e.g. systems) in one view
- Filtering on work mode types
IT Calendar – User Interface

Time frame selector
Select Technical Component Type

Switch between different views

Filter on work mode types to be displayed

View planned work modes for selected technical component(s)

See details of selected work mode

Example:
- Technical System
  - C50-ABAP
    - Monday: 09:00-10:00, 10:00-15:00, 15:00-17:00
    - Tuesday: 09:00-10:00, 10:00-15:00, 15:00-17:00
    - Wednesday: 09:00-10:00, 10:00-15:00, 15:00-17:00
    - Thursday: 09:00-10:00, 10:00-15:00, 15:00-17:00
    - Friday: 09:00-10:00, 10:00-15:00, 15:00-17:00
- C50-JAVA
  - Monday: 09:00-10:00, 10:00-15:00, 15:00-17:00
  - Tuesday: 09:00-10:00, 10:00-15:00, 15:00-17:00
  - Wednesday: 09:00-10:00, 10:00-15:00, 15:00-17:00
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  - Friday: 09:00-10:00, 10:00-15:00, 15:00-17:00
- NT1-ABAP
  - Monday: 14:31-17:00
  - Tuesday: 14:31-17:00
  - Wednesday: 14:31-17:00
  - Thursday: 14:31-17:00
  - Friday: 14:31-17:00
- NT1-JAVA
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  - Wednesday: 14:31-17:00
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Example event:
- 12 March 2011: 20:00 - 23:00
  - Title: Perform offline backup
  - Status: Active
  - Created By: RICHARDS
  - Changed By: RICHARDS
Technical Administration
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Central Notification Management
Requirements & Motivation

- Automatically notify interested / responsible recipients at the right time about specific events
- System users have to be notified about upcoming planned system down times
- Technical Administrators have to be notified about alerts for systems in their responsibility
- Store and structure recipient information in a central location
- Let recipients decide how they would like to be notified
Central Notification Management - Features

Notification Management provides functionality to send Emails/SMS to users, manage absence, presence and substitution of users.

- Maintain recipient lists for different target groups: e.g. system administrators, system users,…
- Add recipients from multiple sources: system users, business partners, Exchange Servers,…
- Personalize own notification settings, enter absences and define substitutes
- Send notification automatically or manually from Work Mode Management, Technical Monitoring,…
Central Notification Management – User Interface

- Global Recipient Pool: import recipients from managed systems
- Recipients Lists: group recipients into recipient lists, add recipients from exchange servers
- Add Recipients from Solution Manager System, Managed Systems, LDAP Servers
- Define own notification settings, absences and substitutes
## Technical Administration

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Task Inbox- Features

Task Inbox provides a central entry point to manage IT related tasks

- One central inbox for tasks created in different applications
  - Central System Administration
  - Work Mode Management
  - Issue Management

- Supports creation of simple and complex tasks

- Execute and confirm tasks

- Check for overdue tasks
Task Inbox – User Interface

- Display Overdue, Active, Completed tasks
- Display Tasks by application in which they were created
- Time frame selection
- Create new tasks

Task List

- Downtime Management 0000091234: Shutdown System P6 22.02.2011 22.02.2011 Completed Very High TAD_ALL_05 TAD_ALL_05 22.02.2011
- Downtime Management 0000091235: Restart System P6 22.02.2011 22.02.2011 Now
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Central Tool Access - Features

Provide a central entry point to administration tools for managed systems

- Central access to important administrative tools such as database backup planning, profile parameters maintenance, user management and transport management on managed systems
- Supports ABAP and Java systems
- Adding new tools for ABAP systems possible
Central Tool Access – User Interface

Managed System Context

Add new tools for ABAP systems

Tool List Provides direct jump into tool in managed system
## Technical Administration

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MDM Administration Cockpit - Features

Provide a central entry point to basic administration functionality for SAP Netweaver MDM 7.1

- Start / Stop MDM Servers
- Load / unload MDM Server Repositories
- Administrative actions for Repositories
  - Verify / Check - Repair
  - Archive
  - Load with update indices
MDM Administration Cockpit – User Interface

Managed System Context

Administrative functions for MDM Servers and Repositories

MDM Server and Repository Status
Thank You!