Pulse2011
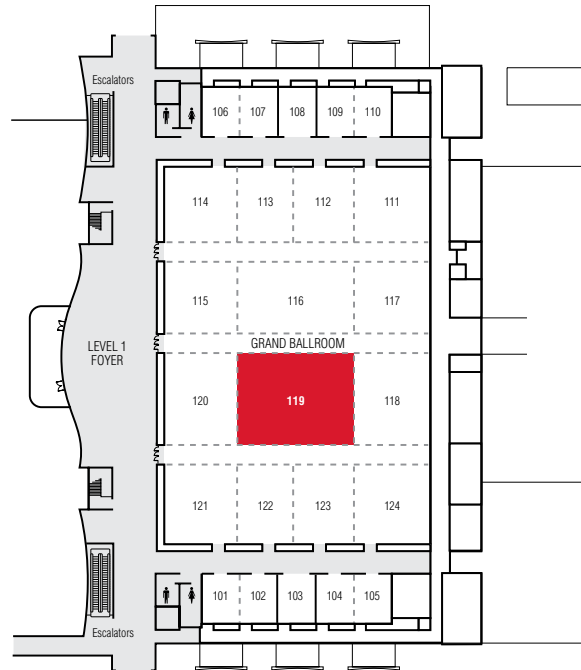
Hands-on Labs

Hands-on labs provide an excellent opportunity to gain first-hand technical experience with IBM's products and solutions. Come to the lab room at your convenience and take as many of the over 130 self-paced labs as you like. Lab exercises are self-paced and designed to take between 45 and 90 minutes each. Don't miss this opportunity even if you have no gaps in your busy session schedule. For your convenience, the lab room will be open Sunday before Pulse begins and on Thursday after Pulse concludes. During the event, it will be open beyond regular conference activities and during lunch breaks. Lab proctors and staff are available to point you to the topics that best fit your needs and to assist you with your lab exercises.

Hands-on Labs

Hands-on Labs Schedule

Day	Time
Sunday	10:30 a.m. – 05:00 p.m.
Monday	10:30 a.m. – 06:00 p.m.
Tuesday	10:30 a.m. – 06:00 p.m.
Wednesday	08:00 a.m. – 06:00 p.m.
Thursday	08:30 a.m. – 12:00 p.m.

Hands-on Labs Location

Conference Center, Level 1
Room 119

Index of Lab Descriptions

Hands-on Labs

Lab 1 IBM Tivoli Network Manager IP Edition

Discovering with Ping and File Finders
This lab exercise familiarizes you with discovery tasks in Tivoli Network Manager IP Edition. In this exercise, you will perform the following tasks:

1. Configure an initial discovery using only the ping finder.
2. After the initial discovery, generate a list of chassis names and IP addresses.
3. Use the generated file finder as a seed to the file finder to speed up the finding stage on subsequent discoveries.
4. Search for discovered devices and display them in the Hop View.
5. Create a Network View (or partition view) to categorize discovered devices.

● ○ ○   **45**   *Audience: User, Administrator, Implementer*

Lab 2 IBM Tivoli Network Manager IP Edition

Modifying Stitchers to Enrich Discovery
In this lab exercise, you learn about modifying discovery stitchers to enhance the default discovery of Tivoli Network Manager IP Edition. You will perform the following tasks:

1. Add a Location field to the discovery by modifying the stitcher to assign that field based on IP address.
2. Assign a Location field by modifying a discovery stitcher to use a lookup table.
3. Assign a Location field by modifying a discovery stitcher to do pattern matching based on data in a hosts file.
4. Verify that the new Location information is exported to the Network Connectivity and Inventory Model (NCIM) database.
5. View the altered information in TopoViz.

● ● ○   **90**   *Audience: Administrator, Implementer*

Lab 3 IBM Tivoli Network Manager IP Edition

Enriching Events with Topology Information
In this lab exercise, you learn how to modify the Tivoli Network Manager IP Edition gateway to reduce mean time to restore (MTTR) in your network. To do so, you will add information found during discovery to alarms in the Tivoli Netcool/OMNIbus ObjectServer. You will perform the following tasks:

1. Run a discovery with the ExtraDetails agent to gather sysContact and sysLocation information.
2. Configure discovery to get interface alias information from devices.
3. Add necessary fields to OMNIbus to store contact and location information.
4. Configure gateway to append interface alias or description information to interface events.
5. Configure gateway to populate contact and location information on events related to discovered devices.

● ● ○   **45**   *Audience: Administrator, Implementer, Architect*

Lab 4 IBM Tivoli Netcool/OMNIbus 7.3

Using the nco_postmsg Utility
A new utility named nco_postmsg is available for sending a single event directly to a specified ObjectServer. This utility accepts name-value pairs for the alert data and constructs an SQL INSERT statement, which is used to create an alert in a specified database table in the ObjectServer. The nco_postmsg utility is useful for diagnostic or testing purposes. It can be run directly from the command line, from scripts, or from automations that are used to send alerts to the ObjectServer. In this lab exercise, you will use the utility to input information into an ObjectServer and validate the information.

● ● ○   **45**   *Audience: User, Administrator, Implementer*

Lab 5 IBM Tivoli Netcool/OMNIbus 7.3

IBM Tivoli Monitoring Predictive Analytics Configuration
New to Netcool/OMNIbus V7.3 is the predictive analytics capability, which you can use to identify potential performance and capacity problems that could result in performance degradation or service outages. In this lab exercise, you will configure predictive event generation and monitor predictive events within an integrated environment that contains installations of Tivoli Netcool/OMNIbus V7.3, the probe for Tivoli Event Integration Facility and IBM Tivoli Monitoring V6.2.2.

● ● ○/● ● ●   **45**   *Audience: User, Administrator, Implementer*

Lab 6 IBM Tivoli Netcool/OMNIbus 7.3

Installation or Upgrade
IBM Tivoli Netcool/OMNIbus 7.3 introduces several advancements over previous versions of this enterprise-level operations management solution. In this lab exercise, you will use the Tivoli Netcool/OMNIbus V7.3 installer technology that was introduced in related Tivoli products. You will have the choice of performing a fresh installation, a version upgrade, or both. Wizard, console and silent modes of installation and uninstallation will be presented. You will then verify functional elements of the installation process.

● ● ○/● ● ●   **45**   *Audience: User, Administrator, Implementer*

Lab 7 IBM Tivoli Netcool/OMNIbus 7.3, Tivoli Common Reporting

Historical Event Reporting Using Tivoli Common Reporting and Tivoli Data Warehouse
Install and configure the OMNIbus ODBC Gateway to archive events from an ObjectServer to the Tivoli Data Warehouse running on DB2®. Install the report definitions into Tivoli Common Reporting and explore the available reports and graphs.

● ● ○   **45**   *Audience: User, Administrator, Implementer*

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●

Lab 8 IBM Tivoli Netcool Performance Manager 1.3

Wireless Component Overview
The IBM Tivoli Netcool Performance Manager overview lab exercise will introduce you to the powerful features and capabilities of the product specifically for a wireless network. You will learn about the product architecture and how basic tasks are performed using realistic use-case scenarios.

● ○ ○ **90** *Audience: User, Administrator, Implementer, Architect*

Lab 9 No longer available

Lab 10 IBM Tivoli Netcool Performance Manager 1.3

Wireline Component Overview
The IBM Tivoli Netcool Performance Manager 1.3 Overview lab exercises introduce the powerful features and capabilities of the product specifically for wireless management. In a proctored hands-on experience, learn about the product architecture and how basic tasks are performed using realistic use-case scenarios.

● ○ ○ **60** *Audience: User, Administrator, Implementer, Architect*

Lab 11 IBM Tivoli Netcool Performance Manager 1.3

Reporting Groups for Wireline Component
A key benefit of Tivoli Netcool Performance Manager is its ability to quickly and accurately deliver reports to users. During this lab exercise, you will associate reporting groups with network components, which are used to deliver critical reports to the Network Operations Center, management and customers.

● ● ○ **60** *Audience: Administrator, Implementer, Architect*

Lab 12 IBM Tivoli Netcool Configuration Manager

Import and Normalize a New Network
This lab exercise walks you through importing a new network, discovered by Tivoli Netcool Configuration Manager into an existing Tivoli Netcool Configuration Manager environment. Then you normalize by following these steps:

1. Review a set of users and groups to understand realm security.
2. Load and synchronize configuration data of discovered devices.
3. Analyze new devices for compliance with standard security policies.
4. Remediate devices that are shown to be noncompliant.
5. Create a command set to standardize SNMP community strings across new devices.

● ● ○ / ● ● ● **60** *Audience: Administrator, Implementer, Architect*

Lab 13 IBM Tivoli Netcool Configuration Manager

Device Operating System Upgrade with Tivoli Netcool Configuration Manager
In this lab exercise, you will prepare a network for an Internetwork Operating System (IOS) upgrade to standardize devices and enable new router features, including these tasks:

• Importing devices into Tivoli Netcool Configuration Manager
• Using the OS Registry and OS Specification to analyze potential risks of upgrading devices to the standard operating system that will be used by the service provider

● ● ○ / ● ● ● **45** *Audience: Administrator, Implementer, Architect*

Lab 14 IBM Tivoli Netcool Service Quality Manager (TNSQM) 4.1.3

Overview
The IBM Tivoli Netcool Service Quality Manager 4.1.3 overview lab exercise will introduce you to the powerful features and capabilities of the product. You will learn about the product architecture and how basic tasks are performed using realistic use-case scenarios.

● ○ ○ **45** *Audience: User, Administrator, Implementer, Architect*

Lab 15 IBM Tivoli Business Service Manager V4.2.1

Using Charts in Tivoli Business Service Manager Dashboards
Charts are a major component of Tivoli Business Service Manager (TBSM) dashboards. When employed properly using TBSM charting facilities, charts provide an attention-getting and rapid means of conveying the status of the health of business services you are managing with TBSM. Chart data can be built from queries against any database, from data derived by TBSM service models and from custom written policies. In any of these cases, they provide a means of displaying Key Performance Indicators (KPIs) and how they affect the status of managed services. This lab exercise will introduce the charting facilities of TBSM and illustrate how these charts can be used in assembling and customizing Tivoli Integrated Portal pages. To readily benefit from this lab exercise, you must have an introductory knowledge of TBSM service modeling concepts and familiarity with navigation and page creation facilities of the Tivoli Integrated Portal (TIP) functions used by TBSM.

● ● ○ **60** *Audience: Administrator, Implementer, Architect*

Lab 16 **IBM Tivoli Business Service Manager and IBM Tivoli Monitoring**

Using IBM Tivoli Monitoring Policies with TBSM Data Fetchers
IBM Tivoli Monitoring provides a wealth of key performance indicators (KPIs) that can be collected by Tivoli Business Service Manager (TBSM) and used to determine the health of business services. In these lab exercises, you will learn about a new type of data fetcher. This data fetcher is based on a Tivoli Monitoring policy that uses Web Services to collect performance data obtained by a Tivoli Monitoring agent. You can then use the data fetcher in a rule whose output can be displayed in service trees and charts. The rule can also set thresholds against the metric to determine service status. These lab exercises require an intermediate knowledge of TBSM service modeling concepts, particularly data fetchers and data-fetcher-based service template rules.
● ● ○/● ● ●   **60**   *Audience: Administrator, Implementer, Architect*

Lab 17 **IBM Tivoli Business Service Manager and IBM Tivoli Network Manager**

Integrating Tivoli Business Service Manager with IBM Tivoli Network Manager
The network environment is an integral part of the IT infrastructure upon which business services depend. Through the use of Discovery Library Architecture IBM Tivoli Network Manager (ITNM) can generate information in a file that TBSM can use to transform the network discovery data and use the data to automatically instantiate Tivoli Business Service Manager (TBSM) service instances representing network components. These components can then be used as building blocks to define service dependencies. In these lab exercises you will learn to how to set up TBSM discovery of network components. You will configure OMNIbus and TBSM to map Tivoli Network Manager events to discovered TBSM service instances. You will launch Tivoli Network Manager from TBSM in the context of services instantiated through the Discovery Library architecture. Such contextual launches provide the TBSM operator a convenient way to determine the extent to which business service unavailability might be caused by network issues.
● ● ○/● ● ●   **60**   *Audience: Administrator, Implementer, Architect*

Lab 18 **IBM Tivoli Business Service Manager, Tivoli Netcool/OMNIbus and Tivoli Netcool/Impact**

Using Tivoli Netcool/Impact Enriched Events for Automatic Creation of TBSM Services
Tivoli Business Service Manager (TBSM) services can be created automatically from events that contain adequate information to instantiate services. If the events do not contain adequate information, Netcool/Impact can be used to retrieve the missing information from other data sources so that TBSM autopopulation rules can generate the service instances. These lab exercises will illustrate the integration of TBSM, Netcool/Impact and OMNIbus in automatic service discovery.
● ● ○/● ● ●   **60**   *Audience: Administrator, Implementer, Architect*

Lab 19 **IBM Tivoli Integrated Portal/Tivoli Business Service Manager**

Building Custom Dashboards in a TIP-Integrated Environment
The Tivoli Integrated Portal (TIP) allows multiple application components to be seamlessly combined to provide highly focused custom interfaces, or custom dashboards. In this series of lab exercises, you will learn how to create custom pages combining application components, or portlets. This lab environment will include Tivoli Business Service Manager 4.2.1, IBM Tivoli Network Manager 3.8 and IBM Tivoli Monitoring 6.2. In addition to custom pages, you will learn how to use other Tivoli Integrated Portal functions to further control and customize the user experience.
● ● ●   **90**   *Audience: Administrator, Implementer, Architect*

Lab 20 **IBM Tivoli Integrated Portal**

Configuring Single Sign-On and Tivoli Integrated Portal Integration
Tivoli Integrated Portal (TIP) provides an application framework to offer very close integration of Tivoli Integrated Portal-enabled products. A key enhancement to Tivoli Integrated Portal integration is creating a WebSphere Single Sign-On (SSO) environment. SSO also allows other applications, such as IBM Tivoli Monitoring (ITM), to integrate very closely with Tivoli Integrated Portal products. In this lab exercise, you will be guided through the tasks necessary to create an SSO- and Tivoli Integrated Portal-integrated environment. These tasks include a demonstration of the integration with TBSM 4.2.1, Tivoli Netcool Manager 3.8, Tivoli Monitoring 6.2 and IBM Directory Server 6.2, including Launch-in-Context (LIC) between Tivoli Integrated Portal and Tivoli Monitoring products.
● ● ●   **90**   *Audience: Administrator, Implementer, Architect*

Lab 21 **IBM Tivoli Netcool/Impact**

Operator View Creation
IBM Tivoli Netcool/Impact Operator Views are web pages that provide views of OMNIbus events and Netcool/Impact data in real-time. The pages also allow the user to launch actions based on the information presented in the Operator View. These views can be accessed as a stand-alone page, incorporated into OMNIbus menus or included in a dashboard. This lab exercise teaches you how to create simple Operator Views through the GUI and more complex customized Operator Views.
● ○ ○   **45**   *Audience: Administrator, Implementer, Architect*

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●

Lab 22 — IBM Tivoli Integrated Portal

Overview

The Tivoli Integrated Portal (TIP) provides single sign-on, consolidated user management and a single point of access for different Tivoli applications. It also provides the ability to create customized pages and administer access to content by user, role or group. This lab exercise provides an overview of the Tivoli Integrated Portal architecture and hands-on experience with creating users and groups and configuring LDAP. ● ○ ○ **60** *Audience: Administrator, Implementer, Architect*

Lab 23 — IBM Tivoli Netcool/Impact

Tivoli Netcool/Impact and Web Services

IBM Tivoli Netcool/Impact can obtain data from various external systems and applications through SOAP messages to Web Services providers. In this lab exercise, you will create policies that query an Internet Web Service provider.

● ● ○ **45** *Audience: Administrator, Implementer, Architect*

Lab 24 — IBM Tivoli Common Reporting 1.3

Installing and Using Tivoli Reports in Tivoli Common Reporting

Tivoli Common Reporting 1.3 implements the Cognos Business Intelligence 8.4 reporting engine. This industry-leading business intelligence product can create complex, partitioned reports using date and time dimensions from a data model and the user does not need to know any SQL or HTML. Several Tivoli products provide Cognos-based reports that the customer can deploy to gain immediate value without any programming efforts. This lab exercise serves as an introduction to Cognos Connection and shows you how to implement Tivoli product-provided Cognos-based reports.

● ○ ○ **60** *Audience: Operator, Administrator, Implementer*

Lab 25 — IBM Tivoli Common Reporting 1.3

Creating Customized Reports Using Tivoli Common Reporting

This lab exercise shows you how to create original Cognos-based reports using a data model. Use Query Studio to quickly create reports showing system resources utilization over a specified time period. Quickly add charts and graphs to enhance data visualization and spot trends and problem areas. Create the prompts to limit resource selection and time period, all without knowing any SQL or HTML. Then use Report Studio to create professional-level reports using a Cognos data model and the Tivoli report template. Because the template has built-in date prompting and pagination controls, you do not have to create those controls yourself. You can also use Report Studio to open several Tivoli product-provided reports to examine their structure and see how these complex reports were created.

● ● ○ **60** *Audience: : Administrator, Implementer*

Lab 26 — IBM Tivoli Monitoring

Introduction to Using Tivoli Enterprise Portal

If you have not used the Tivoli Enterprise Portal client before, you should start here. During this lab exercise, you will learn about workspaces and views. You will see how to efficiently navigate the interface to locate critical information about performance and availability of enterprise resources. This lab exercise is the introduction to all other IBM Tivoli Monitoring lab exercises.

● ○ ○ **60** *Audience: : Operator, Administrator*

Lab 27 — IBM Tivoli Monitoring

Writing Effective Situations with IBM Tivoli Monitoring 6.2.2

This step-by-step lab exercise covers how to create situations in Tivoli Enterprise Portal effectively in order to monitor your enterprise. During this exercise, you will experience different usage scenarios for each type of situation, including Standard and Correlated. You need a good understanding of Tivoli Enterprise Portal and how to navigate workspaces to get the most out of this lab exercise.

● ● ○ **60** *Audience: Administrator*

Lab 28 — IBM Tivoli Monitoring

IBM Tivoli Monitoring 6.2.2 Agentless Monitoring and Agent Autonomy

As of IBM Tivoli Monitoring 6.2.2, Tivoli Enterprise Monitoring Agents can run independently of the Tivoli Enterprise Monitoring Server. This step-by-step lab exercise will show you how to configure agents to run in this manner. You will learn how to forward situation events as SNMP traps to Netcool/OMNIbus. You will also learn how to configure IBM Tivoli Monitoring to monitor remote devices using SNMP, with which you can monitor systems that do not have any monitoring agents installed. ● ● ○ **60** *Audience: Administrator*

Lab 29 — IBM Tivoli Monitoring

Historical Data Collection

IBM Tivoli Monitoring collects and displays historical data for trending, analysis and capacity planning. This lab exercise will show you how to configure historical data collection and view historical data in workspace views.

● ● ○ **60** *Audience:: Administrator, Implementer*

Lab 30 — IBM Tivoli Monitoring

Backing up Your Monitoring Environment Using the Command-Line Interface

In this lab exercise, you will learn how to back up critical information in the monitoring environment. You will learn which files to back up for the monitoring server. For portal servers, commands will be issued to provide portal backups and copies. You will back up and restore bundles, situations, policies, queries, calendar entries and workspaces. ● ○ ○ **60** *Audience: Implementer*

Lab duration is indicated in minutes.

45 minutes **45**   60 minutes **60**   90 minutes **90**

Hands-on Labs

Lab 31 **IBM Tivoli Monitoring, IBM Tivoli Composite Application Manager, OMEGAMON XE**

Monitoring Solution Overview
Come and test drive any of more than 75 simulated agents using a live IBM Tivoli Monitoring V6.2.2 Fix Pack 3 installation showing data from the following products:

- ITCAM for Application Diagnostics (ITCAM for WebSphere, Web Server Agent, ITCAM for J2EE including WebLogic, JBoss, NetWeaver, Oracle and Tomcat)
- ITCAM for Applications (Citrix, DB2, i5/OS, J2EE, Oracle, Oracle Extended Agent, Domino®, MSSQL, MQ, QI, mySAP, PeopleSoft Domain, PeopleSoft Process Scheduler, Siebel, Sybase, VMware ESX, VMware VI, Web Servers, WebSphere, Linux, UNIX, i5/OS, Windows)
- ITCAM for SOA Platform (ITCAM for SOA, Premium AIX®, CEC, HMC, VIOS, J2EE, MQ, QI Agent, VMware ESX, VMware VI, Web Servers, WebSphere, Linux, UNIX, Windows)
- ITCAM for Transactions (Application Management Console, Client Response Time, Robotic Response Time, Web Response Time, Internet Service Monitors, Transaction Collector, Transaction Reporter)
- IBM Tivoli Monitoring Agents (Premium AIX, CEC, HMC, VIOS, Linux, UNIX, i5/OS,Windows)
- IBM Tivoli Monitoring for Energy Management (Active Energy Management, Johnson Controls Metasys, Eaton Power Xpert APC InfraStruXure, Siemens APOGEE)
- IBM Tivoli Monitoring for Microsoft Applications (Active Directory, Exchange, MSSQL, Hyper-V, IIS, .NET Framework, Biztalk, MS Cluster Server, Sharepoint Portal, MS Virtual Server, Windows)
- IBM Tivoli Monitoring for Virtual Servers (VMware ESX, VMware VI, Citrix)
- OMEGAMON (CICS®, CICS Transaction Gateway, Storage, DB2, IMS, MVS, Netview, MQ, QI, Mainframe Networks)
- Performance Analyzer
- Tivoli Enterprise Console Integration

● ○ ○ **60** *Audience: All*

Lab 32 **No longer available**

Lab 33 **IBM Tivoli Monitoring for Energy Management**

Monitoring and Managing Your Data Center Energy Usage
If you are wondering how to save money or how much energy is being consumed in your data center, take a look at what information IBM Tivoli Monitoring for Energy Management can provide you about the energy usage in your data center. IBM Tivoli Monitoring for Energy Management monitors energy metrics for servers and devices in your data center. This data can then be used to identify areas where you can save money. In this lab exercise, you will learn how energy data can be integrated with existing performance monitoring capabilities. You will also learn how to generate a Data Center Infrastructure Efficiency (DCiE) report which shows the relative efficiency of a data center.

● ● ○ **75** *Audience: Operator, Administrator*

Lab 34 **IBM Tivoli Universal Agent**

Overview
With the Universal Agent, you can quickly create customized monitors for your enterprise for things that cannot be monitored using product-provided agents. This set of lab exercises covers setting up the Universal Agent to use a variety of ways to collect and display data in Tivoli Monitoring, such as using the output from scripts, using the post data provider, monitoring logs, monitoring web pages and monitoring databases. You need a good understanding of Tivoli Enterprise Portal and navigating workspaces to get the most out of this lab exercise.

● ● ● **90** *Audience: Administrator*

Lab 35 **IBM Tivoli Monitoring Agent Builder**

Custom Monitoring with Agent Builder
The IBM Tivoli Monitoring Agent Builder provides a set of tools that you can use to quickly create custom monitoring solutions for IBM Tivoli Monitoring. During this lab exercise, you will create, test and deploy custom agents that monitor various Windows and Linux data sources. Although this lab exercise is intended for someone with little or no experience with Agent Builder, it will emphasize newer features in Agent Builder. ● ● ○ **90** *Audience: Administrator*

Lab 36 **IBM Tivoli Composite Application Manager (ITCAM) for Applications Diagnostics, SOA, Transactions**

Getting to Know ITCAM Products and Solutions
This lab exercise provides an introduction to IBM's Composite Application Management solutions. Exercises provide hands-on exposure to solution architecture, key workspaces and common usage scenarios. Solutions covered include ITCAM for Application Diagnostics, ITCAM for SOA, and ITCAM for Transactions.

● ● ○ **75** *Audience: Operator, Administrator, Architect*

Lab 37 IBM Tivoli Composite Application Manager for Application Diagnostics and Tivoli Enterprise Portal

The Tivoli Enterprise Portal and Launch in Context
Launch in Context is a powerful feature, which allows users to move seamlessly between the Tivoli Enterprise Portal (TEP) and a wide array of deep-dive solution interfaces, including ITCAM for Application Diagnostics' Managing Server Visualization Engine (MSVE). This lab exercise will cover a number of out-of-the-box TEP-MSVE links, as well as some of the extra diagnostic features the MSVE makes available.
● ● ○ **75** *Audience: Operator, Administrator, Implementer, Architect*

Lab 38 IBM Tivoli Composite Application Manager for Transactions

Introduction to ITCAM for Transactions
In this lab exercise, you will be introduced to the application monitoring capabilities of ITCAM for Transactions 7.2. You will have access to a completely configured ITCAM for Transactions environment monitoring several applications using robotic and real-time monitors and transaction tracking. You will see the current status of the monitored application, view detailed real-time and historical reports for each application, track transactions through servers and domains and investigate performance and availability problems within an application.
● ○ ○ **90** *Audience: Operator, Administrator, Implementer, Architect*

Lab 39 IBM Tivoli Composite Application Manager for Transactions

Tracking Transactions End-to-End
This lab exercise focuses on transaction tracking with ITCAM for Transactions. You will implement and administer transaction tracking for several domains, such as WebSphere, WebSphere MQ and WebSphere Message Broker.
● ● ○ **90** *Audience: Administrator, Implementer*

Lab 40 IBM Tivoli Composite Application Manager for SOA 7.1.1

Introduction to Managing a SOA Environment
In this lab exercise, you will be introduced to the ITCAM for SOA monitoring capabilities. In a preconfigured environment, you will explore product-provided workspaces for availability and response time of web services and service-to-service topologies. You will use ITCAM for SOA Situations and Take Action commands to manage compliance with a service level agreement. You will also review how ITCAM for SOA links to Workspaces for other Tivoli agents, and how this can help you monitor the availability of critical SOA resources.
● ○ ○ **90** *Audience: Operator, Administrator*

Lab 41 IBM Tivoli Identity Manager (TIM) 5.1

Introduction to Privileged Identity Manager
In this lab exercise, you will learn about the different types of accounts and IDs that are supported by Privileged Identity Manager. The lab exercises will take you though the process of defining a shared service, creating shared and pooled IDs and the administration of them. You will also configure and manage shared Enterprise Single Sign-On (ESSO) accounts. The scenarios will include checking out shared IDs, checking in shared IDs and automatic login from ESSO with a shared ID.
● ○ ○ **90** *Audience: All*

Lab 42 IBM Tivoli Identity Manager (TIM) 5.1

Understanding the New Adapter Development Toolkit for Tivoli Identity Manager 5.1
In this lab exercise, you will learn about the latest Adapter Development Toolkit for Tivoli Identity Manager 5.1. Using the tool, you will create your own adapter that has the capability of reading CSV files. This lab exercise will cover how to test your adapter functionality before importing it into Tivoli Identity Manager by using the test scripts that are generated by the tool. Although the adapter created in this lab exercise is configured to work with a CSV file, you will learn how to use other connectors to quickly create an adapter that can connect to other data stores. ● ● ○ **90** *Audience: Administrator, Implementer, Architect*

Lab 43 IBM Tivoli Identity Manager (TIM) 5.1

Tivoli Identity Manager 5.1 Workflows
In this lab exercise, you will use Tivoli Identity Manager 5.1 to create and modify provisioning workflows. It will introduce you to the workflow objects and allow you to create more complex workflows by using JavaScript to extend the workflow. This lab exercise covers how to handle complex multiple approval workflows and how to have a provisioning workflow modify the person record. Note: This exercise does not cover creating custom extensions or operations.
● ○ ○ **90** *Audience: Administrator, Implementer*

Lab 44 IBM Tivoli Identity Manager (TIM) 5.1

Recertification in Tivoli Identity Manager 5.1
In this lab exercise, you explore methods of recertification in Tivoli Identity Manager 5.1. You create recertification policies and workflows for all possible types of entities (roles, users, accesses and accounts).
● ○ ○ **90** *Audience: Administrator, Operator*

Lab 45   IBM Tivoli Directory Integrator (TDI) 7.1

Understanding Tivoli Directory Integrator and Its Development Environment
In this lab exercise, you create a Tivoli Directory Integrator AssemblyLine that introduces you to the new Eclipse-based Configuration Editor. You also use other new features, such as JavaScript completion and syntax checking, and the enhanced AssemblyLine debugger. You will also have lab exercises on using the new EasyETL (extract, transform and load) facility that brings extremely fast value to the customer. If you choose to, you can also explore some more advanced topics such as the creation and use of a true web service using only IBM Tivoli Directory Integrator 7.1, and creating a custom connector built using the JavaScript scripting language.
● ● ○   **90**   *Audience: Administrator, Implementer*

Lab 46   IBM Tivoli Security Information and Event Manager (TSIEM) 2.0

Security Information Monitoring
This lab exercise will introduce you to the reporting features of IBM Tivoli Security Information and Event Manager. You will gain hands-on experience collecting, loading and reporting on security audit data.
● ○ ○   **90**   *Audience: Administrator*

Lab 47   IBM Tivoli Security Policy Manager (TSPM) 7.1

Data Level Security Management with Tivoli Security Policy Manager
Tivoli Security Policy Manager can discover database resources, as well as classify and attach authorization policies to databases. These XACML policies can be distributed and then enforced by the database itself. In this lab exercise, you will see that rather than modifying the application security itself, you can create and distribute policies which are protecting access to information right at the data level.
● ● ○   **90**   *Audience: Implementer, Architect*

Lab 48   IBM Tivoli Security Policy Manager (TSPM) 7.1

Creating XACML Security Templates with Tivoli Security Policy Manager
This lab exercise will show how the policy model supported by the Policy Design Tool is an authorization policy model derived from XACML. You will see how to author policies for non-technical users through a simple policy model that has been enriched with business-oriented extensions. You can then export this policy into an XACML file which can then be imported, configured and distributed by Tivoli Security Policy Manager.
● ● ○   **60**   *Audience: Implementer, Architect*

Lab 49   IBM Tivoli Federated Identity Manager (TFIM) 6.2.1

Configuring OpenID in Tivoli Federated Identity Manager
This lab exercise presents an opportunity to configure and use OpenID 1.1 and 2.0 features supported in Tivoli Federated Identity Manager 6.2.1.   ● ● ●   **90**   *Audience: Administrator*

Lab 50   IBM Tivoli Federated Identity Manager (TFIM) 6.2.1

User Self-care in Tivoli Federated Identity Manager
This lab exercise covers how to configure User Self-Care in Tivoli Federated Identity Manager 6.2.1.
● ● ●   **90**   *Audience: Administrator*

Lab 51   IBM Tivoli Key Lifecycle Manager 2.0

Using Tivoli Key Lifecycle Manager 2.0
This lab exercise teaches you how to configure, use and administer Tivoli Key Lifecycle Manager 2.0 to manage encryption keys for storage media (disks and tapes).
● ○ ○   **90**   *Audience: Implementer, Architect*

Lab 52   IBM Security zSecure

Using zSecure to Audit Your Z Environment
This lab exercise shows you how the zSecure product audits the mainframe from three different viewpoints: Configuration Settings, Privileges and Access Rights, and Compliance Monitoring. This lab exercise shows you the connection between the three audit viewpoints and how zSecure completes a risk assessment of the mainframe environment.   ● ● ○   **90**   *Audience: Administrator*

Lab 53   IBM Security zSecure

Using CARLa in zSecure to Customize Reports
This lab exercise shows you how to customize reports within zSecure to ease auditing and administration for central security personnel. Automation is becoming more necessary on all systems, including the mainframe. You will learn how to use zSecure to automate revoking or suspending users on the system.
● ● ○   **90**   *Audience: Administrator*

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●

Lab 54 **IBM Tivoli Access Manager for Enterprise Single Sign-On (TAM E-SSO) 8.1**

Configuring Second Factor Authentication Devices
In this lab exercise, you will configure second factor authentication devices in IBM Tivoli Access Manager for Enterprise Single Sign-On. You will configure second factor devices such as fingerprint readers and RFID card readers to provide stronger authentication for Tivoli Access Manager for Enterprise Single Sign-On. The configuration involves policy settings for Tivoli Access Manager for Enterprise Single Sign-On and drivers for the operating system to recognize the devices. ● ● ○ **90** *Audience: Administrator*

Lab 55 **IBM Tivoli Access Manager for Enterprise Single Sign-On (TAM E-SSO) 8.1**

Profile Development
In this lab exercise, you will create access profiles for Windows, web and Java applications using AccessStudio from IBM Tivoli Access Manager for Enterprise Single Sign-On. You will use the powerful state engine method to implement triggers and actions that will perform credential injection for Windows, web and Java demonstration applications. Credential change will also be implemented with the Windows profile. ● ● ○ **90** *Audience: Administrator*

Lab 56 **IBM Tivoli Access Manager for eBusiness (TAMeb) 6.1.1**

Using WPM Roles in Tivoli Access Manager for eBusiness 6.1.1
In this lab exercise, you will create a WPM role and then use it for resetting user passwords in the Web Portal Manager for Tivoli Access Manager for eBusiness.
● ● ○ **45** *Audience: Administrator*

Lab 57 **IBM Tivoli Access Manager for eBusiness (TAMeb) 6.1.1**

Managing a Tivoli Access Manager for eBusiness 6.1.1 SMS Cluster Using WebSphere eXtreme Scale
In this lab exercise, you will interact with an application hosted on WebSphere and accessed through WebSEAL configured for SMS. You will then recycle the SMS cluster members to observe a live fail-over scenario for SMS. ● ● ● **60** *Audience: Administrator*

Lab 58 **IBM Security Network Intrusion Prevention System 4.1**

Configure Web Application Protection Signatures
In this lab exercise, you will configure the Web Application Protection policy to detect injection attacks, website redirection, cookie stealing and cross-site request forgery (CSRF).
● ● ○ **60** *Audience: Administrator*

Lab 59 **IBM Security Network Intrusion Prevention System 4.1**

Create Custom Signatures
In this lab exercise, you will use the Turning Parameters policy to enable OpenSignature functionality, create an OpenSignature rule, configure the Data Loss Prevention policy to detect credit card numbers that appear in the network and create a user-defined event.
● ● ● **60** *Audience: Administrator*

Lab 60 **IBM Security Network Intrusion Prevention System 4.1**

Configure and Register the IBM Security Network Intrusion System with SiteProtector
In this lab exercise, you will configure the settings on an unconfigured IBM Security Network Intrusion Prevention System appliance. Then you will configure authentication on the Agent Manager, access the local management interface and configure the appliance to report to SiteProtector. ● ○ ○ **60** *Audience: Administrator*

Lab 61 **IBM Security Server Protection 2.1**

Configure, Create and Install an Agent Build
In this lab exercise, you will configure network protection, application protection, system monitoring, and administration policies, generate an agent build (for Windows) and deploy the agent to a Windows client.
● ● ○ **60** *Audience: Administrator*

Lab 62 **IBM Security SiteProtector System 8.1**

Configure SiteProtector Options and User Permissions
This lab exercise shows you how to configure various display options in the SiteProtector Console to reflect your personal needs. The lab describes the default user groups in SiteProtector, and shows you how to add user groups and users, and configure site-based and group-based user permissions to reflect your local security policy.
● ● ○ **60** *Audience: Administrator*

Lab 63 **IBM Security SiteProtector System 8.1**

Configure and Deploy Hierarchical Policies
This lab exercise shows you how to configure the hierarchical policies that determine which events security agents detect and block, and how to deploy policies to individual agents and groups of agents. The lab also shows how to create and manage policy repositories.
● ● ○ **60** *Audience: Administrator*

Lab 64 IBM Security SiteProtector System 8.1

Create a Custom Analysis View and Generate a Report
This lab exercise shows you how to create a custom Analysis view to monitor security events on your network. It explores how to use analysis perspectives, filters, incidents and exceptions to manage the security data displayed in the SiteProtector Console. The lab also shows you how to generate reports to share important data with others. ● ○ ○ **60** *Audience: Operator, Analyst*

Lab 65 IBM Security Virtual Server Protection 1.1 for VMware

Configuring and Registering the Agent with SiteProtector
In this lab exercise, you will configure Virtual Server Protection for VMware Management, configure the Virtual Machine Observer in Proventia Manager and register the VSP agent with SiteProtector.
● ○ ○ **60** *Audience: Administrator*

Lab 66 IBM Security Virtual Server Protection 1.1 for VMware

Configuring and Deploying Virtual Server Protection Policies and Triggering New Events
In this lab exercise, you will configure and deploy agent and asset policies and then trigger new events.
● ● ○ **75** *Audience: Administrator*

Lab 67 IBM Tivoli Storage Manager (TSM) 6.2.1

Upgrading Version 5.5 to 6.2
In this lab exercise, you will plan for, prepare and upgrade a Tivoli Storage Manager 5.5 server to version 6.2.
● ● ○ **60** *Audience: Administrator*

Lab 68 IBM Tivoli Storage Manager (TSM) 6.2.1

Protecting the Tivoli Storage Manager 6.2 Database
In this lab exercise, you will perform daily database management, such as performing backups, adding space and using the Administration Center to automate database backups. Then you will destroy and recover the database. ● ● ○ **60** *Audience: Administrator*

Lab 69 IBM Tivoli Storage Manager (TSM) 6.2.1

Protecting the Storage Pools
In this lab exercise, you will perform daily storage pool management tasks, such as adding a volume, performing backups, expiration and migration, and using the Administration Center to automate storage pool maintenance. Then you will destroy and recover a storage pool volume from a backup. ● ● ○ **60** *Audience: Administrator*

Lab 70 IBM Tivoli Storage Manager (TSM) 6.2.1

Advanced Methods of Backup and Restore
This lab exercise introduces you to some of the more advanced methods of backup and restore using multiple sessions, create backup sets, back up and restore different types of image backups, and create and use backup groups.
● ● ● **60** *Audience: Administrator*

Lab 71 IBM Tivoli Storage Manager (TSM) 6.2.1

Getting Started with Tivoli Storage Manager
In this introduction to Tivoli Storage Manager, you will start the server, back up and restore files, archive and retrieve files, and confirm the health of the Tivoli Storage Manager environment using the Health Monitor. ● ○ ○ **60** *Audience: All*

Lab 72 IBM Tivoli Storage Manager (TSM) 6.2.1

Focusing on the New Tivoli Storage Manager 6.2 Functions
Upon completion of this lab exercise, you will be able to install Tivoli Storage Manager 6.2 Server and Client, configure Tivoli Storage Manager 6.2 Server and Client, back up and restore, perform Server and Client side data deduplication, configure and use in-flight SSL encryption, and perform Parallel Storage Pool Migration. In addition, you use the new IBM Tivoli Integrated Portal (TIP).
● ○ ○/● ● ○ **90** *Audience: Administrator*

Lab 73 IBM Tivoli Storage Manager (TSM) 6.2.1

Monitoring and Reporting and IBM Tivoli Monitoring
In this lab exercise, you will install, configure and work with IBM Tivoli Storage Manager 6.2 Monitoring and Reporting.
● ○ ○ **90** *Audience: Administrator*

Lab 74 IBM Tivoli Storage Manager (TSM) 6.2.2

IBM Tivoli Storage Manager for Data Protection for Virtual Environments
This lab exercise covers Tivoli Storage Manager protecting Virtual Machines hosted in a vSphere environment. Tivoli Storage Manager 6.2.2 introduced support for the vStorage API, which allows the utilization of the vStorage API for data protection for image-level backup and recovery. This new feature provides file level backup through the Proxy server, file level recovery through the Windows backup archive client, full image backup through the proxy server using vStorage and full image restore through the proxy server.
● ● ○ **90** *Audience: Administrator*

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●

Lab 75 **IBM Tivoli Storage Manager (TSM) 6.1**

IBM Tivoli Storage Manager for ERP
You, as a storage administrator, will install Tivoli Storage Manager for Enterprise Resource Planning (ERP) and configure BRTOOLS, Tivoli Storage Manager for ERP and the Administration Assistant. You will also verify that products have installed successfully. You will perform full and log backups, followed by restores. You will also monitor your operations using the Administration Assistant.

● ○ ○/● ● ●   **90**   *Audience: Administrator*

Lab 76 **IBM Tivoli Storage Manager FastBack 6.1.1**

Installation, Configuration and Operation
IBM Tivoli Storage Manager FastBack uses disk-based, block-level, incremental-forever technology to protect database, mail and file servers in the small-to-medium business environment. In this lab exercise, you will install the FastBack server and client components, define the repository, and configure the client groups, schedules and policies. You will perform a snapshot backup and a volume restore operation to verify proper functioning of the installation. You also will use the FastBack Mount/Instant Restore module to access the repository, mount a point-in-time snapshot on a virtual volume to restore individual files and folders and then restore an entire data volume.   ● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 77 **IBM Tivoli Storage Manager FastBack 6.1.1**

Replicating the Repository to a Disaster Recovery Site
Client data from IBM Tivoli Storage Manager FastBack backup operations is stored in a disk repository. To provide for disaster recovery and central management, the repository is replicated to a remote disaster recovery site using the Data Replication (DR) component. In this lab exercise, you will install and configure an FTP server to support replication, install and configure the Data Replication components, including the DR scheduler, and perform the data replication operation. Then you will use the Central Control Station module to verify successful replication of the Tivoli Storage Manager FastBack repository.   ● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 78 **IBM Tivoli Storage Manager FastBack 6.1.1**

Tivoli Storage Manager FastBack for Microsoft Exchange 6.1.1
With IBM Tivoli Storage Manager FastBack for Microsoft Exchange, you can restore an entire Microsoft Exchange mailbox (including attachments and calendar items) or simply search for and restore a single email message. In this lab exercise, you will install the Tivoli Storage Manager FastBack client component and configure the client group, schedule and policy to perform a snapshot backup of the Microsoft Exchange database volume. You will also install the Tivoli Storage Manager FastBack for Microsoft Exchange component and use it to restore deleted items from the snapshot backup to the live Exchange database.

● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 79 **IBM Tivoli Storage Manager FastBack 6.1.1**

Bare Machine Recovery
IBM Tivoli Storage Manager FastBack for Bare Machine Recovery is a solution for Windows operating systems that you can use to recover entire systems to a comparable server, to a new server with different hardware or to a virtual machine. In this lab exercise, you will first build the Tivoli Storage Manager FastBack Bare Machine Recovery CD and then use it to boot a damaged machine, access the repository and restore the damaged disk from a snapshot of the operating system volume.   ● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 80 **Tivoli Storage Manager FastBack for Workstations 6.1.1**

FastBack for Workstations 6.1
This lab exercise focuses on continuous data protection (CDP) and its integration with IBM Tivoli Storage Manager (TSM). You will install CDP, set up remote copies to Tivoli Storage Manager, back up files and restore files. You will then install the Central Administrative code and see how CDP can be managed from the Integrated Solutions Console (ISC).   ● ○ ○   **90**   *Audience: Administrator*

Lab 81 **IBM Tivoli Storage Manager FastBack 6.1.1**

Version 6.1.1 Enhancements
This lab exercise focuses on the enhancements introduced in FastBack 6.1.1. The biggest enhancement is the ability to use a Tivoli Storage Manager server's storage pool as a FastBack Data Replication (DR) repository and the ability to restore directly from the Tivoli Storage Manager server back to a FastBack client. This lab will provide the opportunity to become familiar with FastBack 6.1.1.

● ○ ○   **90**   *Audience: Administrator*

Lab 82 IBM Tivoli Storage Productivity Center 4.2

New Features: Part 1
These lab exercises will allow you to discover some of the new features in version 4.2 of Tivoli Storage Productivity Center. Included in the lab exercises are local Data Agent migration, remote Storage Resource Agent upgrade and San Volume Controller (SVC) configuration, which no longer uses the CIM Object Manager.
● ○ ○   **90**   *Audience: Administrator*

Lab 83 IBM Tivoli Storage Productivity Center 4.2

New Features: Part 2
Included in the lab exercises are the new Job History GUI, configuring a Storage Resource Group using the Productivity Center CLI and discussions of the new default groups and templates.
● ○ ○   **90**   *Audience: Administrator*

Lab 84 IBM Information Archive (IA) 1.1

Introduction
Upon completion of this lab exercise, you will be able to install and configure a file archive and a SSAM collection. You will be able to add files to a file archive collection with Metafile, Explicit and Automatic commit. You will also be able to create administrators with various permission levels, describe the architecture of IA and perform a demonstration.   ● ● ○   **90**   *Audience: Administrator*

Lab 85 IBM Tivoli Storage FlashCopy Manager

IBM Tivoli FlashCopy Manager (FCM) on Windows
You as a storage administrator, will install FlashCopy Manager, configure it and work with it. You will perform snapshot backups for MS Exchange and MS SQL Server and explore Individual Mail/Box Recovery. In addition, you will learn its reporting capabilities. Upon completion of this lab exercise, you will be able to install and configure FlashCopy Manager. You will be able to back up and restore VSS snapshots of MS Exchange and MS SQL Server. In addition you will be able to perform individual Mail/Mailbox Recovery for MS Exchange.
● ○ ○/● ● ●   **90**   *Audience: Administrator*

Lab 86 IBM Tivoli Workload Scheduler 8.5.1

Getting Comfortable with the Tivoli Dynamic Workload Console
The Tivoli Dynamic Workload Console (TDWC) allows you to graphically view and configure workload automation in a web-based user interface. In this lab exercise, you create and modify a typical workflow using the graphical view feature to experience the Tivoli Dynamic Workload Console firsthand, with particular emphasis on transitioning from the former Job Scheduling Console, and enhanced productivity.
● ○ ○/● ● ○   **60**   *Audience: User, Administrator, Implementer, Operator*

Lab 87 IBM Tivoli Workload Scheduler 8.5.1

Introduction to Dynamic Scheduling in Tivoli Workload Scheduler
Tivoli Workload Scheduler 8.5.1 includes the dynamic scheduling features formerly found in Tivoli Dynamic Workload Broker. You can automate the workflow management functions by dynamically allocating resources to workload processing. Tivoli Workload Scheduler's dynamic scheduling capabilities can make your batch environment "cloud ready" by automatically managing static and dynamic workloads among applications, as well as physical, virtual and cloud platforms. In this lab exercise, you will automatically provision workloads to available resources based on physical or logical characteristics such as hardware, software or network attributes, demonstrating how Tivoli Workload Scheduler can adapt your workload to business priorities.   ● ● ○/● ● ●   **45**   *Audience: User, Administrator, Implementer, Operator*

Lab 88 IBM Tivoli Workload Scheduler 8.5.1

The Distributed Job Scheduler in Tivoli Workload Scheduler
What is a job scheduler and why do you need one? Tivoli Workload Scheduler provides batch scheduling capabilities in a distributed environment; it is one of the premier job schedulers on the market today. In this lab exercise, you will discover the functions performed by a job scheduler. You will then implement those features in Tivoli Workload Scheduler 8.5.1.   ● ○ ○/● ● ●   **60**   *Audience: User, Administrator, Implementer, Operator*

Lab 89 IBM Tivoli Service Request Manager 7.2

Creating, Ordering and Fulfilling Services with the Service Catalog
In this lab exercise, you will employ the full features of the Service Catalog by following a service from creation through ordering to fulfillment.   ● ○ ○/● ● ●   **45**   *Audience: All*

Lab 90 IBM Tivoli Service Request Manager 7.2

Working with the New Survey Functionality
In this lab exercise, you will create surveys, send them out both manually and automatically, take them, and then analyze the results of returned surveys.
● ○ ○/● ● ●   **45**   *Audience: All*

Lab 91 IBM Tivoli Service Request Manager 7.2

End-to-End Service Management with Service Request Manager 7.2
In this lab exercise, you will use Tivoli Service Request Manager to work with a user issue from the initial report through service request, incident, and problem ticket creation, and finally to the resolution of the issue.   ● ○ ○/● ● ●   **45**   *Audience: All*

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●

Lab 92   **IBM Tivoli Service Automation Manager 7.2.1**

Self-Service Provisioning of Virtual Servers
In this lab exercise, you will configure Tivoli Service Automation Manager to provision virtual servers through VMware ESX server templates. You will also log in as a team administrator and order a new virtual server from the catalog. You will then log in as cloud administrator and monitor the deployment status. This lab exercise will also demonstrate the ability to include a Tivoli Monitoring agent as part of the installation for monitoring of the newly provisioned server.
● ○ ○   **60**   *Audience: Operator, Architect*

Lab 93   **IBM Tivoli Service Automation Manager 7.2.1**

Self-service Provisioning of Virtual Servers with Optional Software
In this lab exercise, you will configure Tivoli Service Automation Manager to allow an additional piece of software to be installed at provisioning time. You will also monitor the deployment, and verify that the software is installed.
● ● ○   **60**   *Audience: Implementer, Administrator*

Lab 94   **IBM Tivoli Service Automation Manager 7.2.1**

Customizing Business Workflows for Cloud Scenarios
In this lab exercise, you will customize the built-in Tivoli Service Automation Manager business workflows to route the service request through an approval process when a certain criteria is met in the request. You will test and verify the approval workflow by creating a new virtual server deployment request as the team administrator role and perform the approval action as the cloud administrator.
● ● ●   **60**   *Audience: Implementer, Administrator*

Lab 95   **IBM Tivoli Provisioning Manager (TPM) 7.2**

Fundamentals
This lab exercise introduces you to using IBM Tivoli Provisioning Manager to perform basic provisioning functions. You will learn to navigate the web console and perform simple management tasks.
● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 96   **IBM Tivoli Provisioning Manager (TPM) 7.2**

Compliance Management
This lab exercise uses IBM Tivoli Provisioning Manager to perform compliance management over a client computer. You will define a desired state for a computer, scan the computer to determine its actual state and use Tivoli Provisioning Manager to correct any compliance issues.   ● ● ○   **45**   *Audience: Operator, Administrator*

Lab 97   **IBM Tivoli Provisioning Manager (TPM) 7.2**

Provisioning Workflows
This lab exercise uses Tivoli Provisioning Manager workflows to create automation. You will use the Automation Package Development Environment (APDE) to develop basic workflows for automating administrative functions.
● ● ○/● ● ●   **45**   *Audience: Operator, Administrator*

Lab 98   **IBM Service Delivery Manager**

Understanding the Activation Engine and Service Connection Engine in the ISDM configuration
This lab exercise takes you through the configuration of IBM Service Delivery Manager's virtual machines that prepare cross-product integration within multiple Virtual Machines. This configuration is primarily performed by two components: the Activation Engine and Service Connection Engine.
● ○ ○   **60**   *Audience: Implementer, Administrator*

Lab 99   **IBM Service Delivery Manager, Tivoli Usage and Accounting Manager**

Cloud Cost Management
In this lab exercise, you will learn how to use IBM Tivoli Usage and Accounting Manager (TUAM) to do metering and accounting for projects and servers of TSAM-based Self Service Virtual Server Management Environment. You will analyze accounting reports in a demonstration setup.
● ● ○   **60**   *Audience: Administrator, Implementer, Architect*

Lab 100   **Tivoli Usage and Accounting Manager**

IT Usage and Accounting (Chargeback)
In this lab exercise, you will learn how to use IBM Tivoli Usage and Accounting Manager (TUAM) to collect resource usage data, how to determine the account that used the resource and how to use the invoices and usage reports created by TUAM.

You also have the option to create your own financial model with TUAM Financial Modeler including entering budgets, selecting rate codes, distributing costs, calculating rates and running comparison reports.
● ○ ○   **90**   *Audience: Administrator, Implementer, Architect*

Lab 101   **Tivoli System Automation for Multiplatforms 3.2.1 (SA MP)**

SAP High Availability
In this lab exercise, you will learn how to make SAP highly available. You will use the new SAP wizard of Tivoli System Automation for Multiplatforms V3.2. to define automation in your own cluster. You will learn to start and stop an entire SAP cluster with a single click. You will perform a critical outage scenario of the SAP central instance and watch SA MP recovering your SAP application.
● ● ○   **60**   *Audience: Implementer, Architect*

Lab 102   **Tivoli System Automation Application Manager, Tivoli Business Continuity Process Manager**

Surviving Disasters
You will be in the driver's seat to save your company, nothing less. Learn how to use Tivoli Business Continuity Process Manager to define and execute a recovery plan.

In this lab exercise you play your role in an automated workflow with multiple people and multiple roles. The next recovery steps are automatically assigned. Check the recovery progress on a dashboard and escalate any deviations in time. You use reports to analyze how your disaster recovery can be further improved and to prove that you are prepared when disaster strikes.
● ● ○   **60**   *Audience: Operator, Administrator, Architect*

Lab 103   **BigFix**

BixFix Enterprise Suite Deployment
The BigFix Enterprise Suite (BES) aims to solve the increasingly complex problem of keeping networked critical systems updated, compatible and free of security leaks. The BigFix Enterprise Suite uses patented Fixlet technology to identify vulnerable computers and easily remediates these vulnerabilities from a centralized BES Console.

This lab exercise guides you through the installation process of the BES Server, BES Console and BES Client and will demonstrate aspects of licensing, installation and some troubleshooting.
● ○ ○   **60**   *Audience: Operator, Administrator*

Lab 104   **BigFix**

BixFix Enterprise Suite Administration
The BigFix Enterprise Suite (BES) aims to solve the increasingly complex problem of keeping networked critical systems updated, compatible and free of security leaks. The BigFix Enterprise Suite uses patented Fixlet technology to identify vulnerable computers and easily remediates these vulnerabilities from a centralized BES Console.

This lab exercise guides you through the configuration, managing and maintenance processes of the BigFix Enterprise Suite required after an initial BES deployment. Best practice optimization techniques will be covered to help with BES performance.
● ● ○   **60**   *Audience: Operator, Administrator*

Lab 105   **BigFix**

Software Asset Management with BigFix
BigFix Decision Support System Software Asset Management (DSS SAM) provides a straightforward and comprehensive view into software assets. Enterprises can use it for continuous asset assessment and reporting rather than episodic and ineffective asset management projects.

This lab exercise guides you through the use of BigFix Decision Support System Software Asset Management (DSS SAM) to discover software installed on managed clients and correlate that information on software usage with license contractual information for immediate, accurate and automated license "true-ups."
● ● ○   **60**   *Audience: Operator, Administrator*

Lab 106   **BigFix**

Maintaining Compliance Posture Using BigFix Security Configuration Management (SCM)
BigFix Security Configuration Management (SCM) combines auto-mation in the form of easily distributed compliance libraries with the flexibility of customized parameterization. BigFix Security Configuration Management uses this library of technical controls to detect and enforce security configuration policies using industry best practices.

This lab exercise guides you through the process of developing and working with SCM checklists that define security parameters and configurations required by a corporate policy. You will learn how to use the Security Configuration Management checklists and benchmarks to enforce security policies and document the current state of compliance against corporate policies. In addition, the lab exercise will provide an example of how auditors can use Security Configuration Management checklists to determine the current state of compliance for systems throughout an organization.
● ● ○   **60**   *Audience: Implementer, Administrator*

Lab 107   **BigFix**

Patch Management Made Simple
BigFix Patch Management is a comprehensive solution for delivering Microsoft, UNIX, Linux and Mac patches, as well as other vendors' application patches, through a single console. With policy-based and dynamic bandwidth controls, patch management offers the lowest total cost of ownership in the industry with high first-pass success rates and easy integration with additional solutions. Discover the simplicity of patching clients throughout the enterprise through the use of the BigFix Patch Management product with a practical end-to-end hands-on experience.

This lab exercise will guide you through the use of the BigFix Patch Management product to patch a Windows client with policy deployment and use the Relevance language to build a simple file distribution policy.
● ● ○   **60**   *Audience: Operator, Administrator*

Lab 108   BigFix

Enterprise Power Management with BigFix
BigFix Power Management allows IT organizations to enforce conservation policies throughout the enterprise to address the cost savings needs of the business while providing granularity that enables application of those policies to a single computer or enabling IT to ensure machines are running at times when it is easiest to apply patches and updates. For users, the opt-in approach maximizes power policy deployment while minimizing usage impact.

This lab will guide you through unlocking potential energy savings of your enterprise with the use of the BigFix Power Management solution, power policy deployment and exercises demonstrating the power down, wake-on-lan and opt-in policies while ensuring no loss of productivity. ● ○ ○ **60** *Audience: Operator, Administrator*

Lab 109   BigFix

BixFix Enterprise Suite Content Development
BigFix allows large networks of computers to be easily monitored and patched in real time using Fixlet technology. The heart of the Fixlet technology is the Relevance language that allows authors to interrogate the hardware and software properties of your managed clients.

This lab exercise will guide you through the process of developing Fixlets using the Relevance language and Relevance Debugger to provide control over the operating environment and provide feedback in near real-time. Upon completion of the exercise, you will have a better understanding of how to quickly target and deploy custom Fixlet messages to hundreds of thousands of globally networked computers from a centralized console.
● ● ○ **60** *Audience: Operator, Administrator*

Lab 110   IBM Tivoli Change and Configuration Management Database 7.2

Reporting with Tivoli Process Automation Engine V7.1.1.6
This lab exercise guides you on developing new Reporting Object Structures for reporting with Query Based Reporting, BIRT, and Cognos Reporting. Understanding of Tivoli Process Automation Engine is required.
● ● ○ **60** *Audience: Administrator, Implementer*

Lab 111   IBM Tivoli Asset Discovery for Distributed and IBM License Metric Tool

IBM PVU Audit Report Preparation
This lab exercise focuses on the software asset manager's tasks required to prepare and confirm collected data before electronically signing an IBM PVU Audit report. These tasks include analyzing Processor Value Unit (PVU) capacity, confirming default instances, excluding product instances and managing software bundles. You create an ad-hoc IBM PVU Audit report, sign it and review the signed report. ● ● ○ **45** *Audience: Operator, Administrator*

Lab 112   IBM Tivoli Application Dependency Discovery Manager 7.2

Ensure Notification When CI Configurations Change
IBM Tivoli Application Dependency Discovery Manager v7.2 provides built-in functionality to forward events to IBM Tivoli Monitoring or Netcool/OMNIbus when changes have been discovered. In this lab exercise, you will familiarize yourself with the architecture and configuration of the various components involved in event processing in order to report change events in the Tivoli Monitoring and OMNIbus consoles. ● ● ○ **60** *Audience: Operator, Administrator*

Lab 113   IBM Tivoli Application Dependency Discovery Manager 7.2

Overview
You will be introduced to the IBM Tivoli Application Dependency Discovery Manager product through the discovery console. You will define, configure and execute discoveries and view the discovered information using the topology maps created by IBM Tivoli Application Dependency Discovery Manager. Basic reports available from within the console will also be explored.
● ○ ○/● ● ○ **60** *Audience: User, Administrator*

Lab 114   IBM Tivoli Change and Configuration Management Database 7.2.1

CI and Asset Linkage
In this lab exercise, you will experience how to link Configuration Item information with Asset information to easily view technical as well as financial, organizational and logistical details for a particular Configuration Item. Providing this linkage to information stored in the Asset records is critical to increase productivity for managing, assessing and reporting on incidents, problems and changes related to CIs as well as Assets, and will allow you to better report actual Costs of Ownership of the physical as well as logical resources in the Data Center. ● ○ ○ **60** *Audience: Operator, Administrator*

Lab 115   IBM Tivoli Change and Configuration Management Database 7.2

Promoting, Reconciling, and Reporting Configuration Item (CI) Information Using CCMDB 7.2
Managing the two data sets in your CCMDB of Configuration Items and Actual Configuration Items is important for both Change Management and Configuration Management processes. When promoted, the processes of auditing, reconciling and reporting are required to verify the accuracy of the Configuration Item information in the CCMDB. This lab exercise will show you how you promote an Actual CI to a CI as well as configure audits, reconcile steps and reconcile reports.
● ● ○ **60** *Audience: Administrator*

Lab 116   **IBM Tivoli Change and Configuration Management Database 7.2**

End-to-End Processing of a Change Request Using CCMDB 7.2
This lab exercise familiarizes you with Change Management tasks by taking you step by step through the tasks of a change. This lab exercise starts by having you create a Process Request (RFC) and guides you through all the activities of a standard Change Request, including the review by the Change Manager. During the lab exercise, you will take the roles of Change Manager, Change Administrator, Change Analyst, Change Owner and Change Implementer.
● ● ○   **60**   *Audience: Administrator*

Lab 117   **IBM Tivoli Change and Configuration Management Database, IBM Tivoli Asset Management for IT, Maximo Asset Management, Service Request Manager**

Resolving Migration Manager Deployment Issues Pertaining to Integration Objects
During this lab exercise, you will be introduced to key migration scenarios, potential pitfalls and techniques to overcome deployment errors. You will create the necessary object structure, the related integration configurations and process migration errors.
● ● ○   **90**   *Audience: Administrator, Implementer*

Lab 118   **IBM Maximo Mobile**

Maximo Mobile for Maximo Asset Management
Maximo Mobile enables mobile workers to complete more planned work and reduce nonproductive activities, paperwork and data entry. In this lab exercise, you will learn how to create mobile security groups, modify apps (xml) for the mobile device, modify queries and download data to the mobile device.
● ● ○   **45**   *Audience: Administrator, Implementer*

Lab 119   **IBM Maximo Asset Management**

Work Assignments Using Assignment Manager
The Assignment Manager application gives users the capability to efficiently plan and dispatch work order assignments. In this lab exercise, you will set up, process and manage work assignments for work order records.
● ● ○   **60**   *Audience: Administrator, Implementer*

Lab 120   **IBM Maximo Asset Management**

Setting up and Generating Preventive Maintenance Work Orders
A preventive maintenance (PM) program is a critical element in a maintenance organization. An efficient PM program can reduce unplanned downtime, increase productivity, increase the life cycle of an asset and create a safer work environment. In this lab exercise, you will set up scheduled and routine maintenance activities using the Preventive Maintenance application and then use the application to generate work orders based on meter-based and time-based frequency.   ● ○ ○   **60**   *Audience: Administrator, Implementer*

Lab 121   **IBM Service Provider**

Creating Response Plans
Service providers that manage assets must improve service levels and customer response while improving cash flow and controlling costs. Many companies transfer specific functions to the service provider, improving focus on core business and mission while reducing overhead. In this lab exercise, you will create a customer agreement and apply it against a Work Order, a Service Request and a Sales Order.
● ○ ○   **60**   *Audience: Administrator, Implementer*

Lab 122   **IBM Service Management**

Migrating Queries and Start Centers
A start center is the single most visible user interface. Users of the product use it extensively from the dashboard as they tailor the start center to their particular application and portlet needs. Eight portlets are provided with the product. One of those portlets germane to this unit is the Result Set portlet. The Result Set portlet is driven by queries. In this lab exercise, you will migrate the start center templates and the Result Set query portlet.
● ● ○   **60**   *Audience: Administrator, Implementer*

Lab 123   **IBM Maximo Asset Management Scheduler**

Introduction
IBM Maximo Asset Management Scheduler 7.1.1 allows planners to view upcoming or forecasted work graphically, compare the required resources against those available, and adjust accordingly. In this comprehensive lab exercise, the focus is on the data set up and management of work records specific to the forecasting and scheduling of work.
● ○ ○   **60**   *Audience: Administrator, Implementer*

Lab 124   **IBM Tivoli Change and Configuration Management Database, IBM Tivoli Asset Management for IT, Maximo Asset Management, Service Request Manager**

Creating a Workflow in CCMDB, IBM Maximo Asset Management and IT Asset Management Solutions
The Tivoli process automation engine solutions employ workflows to customize business processes, manage defined processes from start to finish, provide information to the right people at the right time, provide access to required applications and functions at the right time and provide an audit trail of your business processes. In this lab exercise, you will create a simple workflow process, add several types of nodes to the workflow process, connect the nodes and configure node properties.

● ○ ○   **60**   *Audience: Operator, Administrator, Implementer*

Lab 125   **IBM Tivoli Change and Configuration Management Database, IBM Tivoli Asset Management for IT, Maximo Asset Management, Service Request Manager**

Creating Escalations and Incorporating Actions and Notifications into an Escalation
Maximo solutions use the Escalations application to automatically monitor critical processes across your enterprise. Escalations ensure that critical tasks are completed on time, such as those defined in workflow processes and service level agreements. In this lab exercise, you will create escalations and incorporate actions and notifications into an escalation.

● ● ○   **60**   *Audience: Administrator, Implementer, Architect*

Lab 126   **IBM Tivoli Asset Management for IT**

Software Procurement and License Allocation
In this lab exercise, you will manage the procurement and deployment of a software license within Tivoli Asset Management for IT. You will follow the procurement process of creating a purchase order, receiving the software and creating the license. After creating the license, you will allocate the license capacity to computer assets.

● ● ○   **45**   *Audience: Operator, Administrator*

Lab 127   **IBM Tivoli Asset Management for IT**

Define Licenses and Run Software License Audit Reports
In this lab exercise, you will manage the audit process for software licenses within Tivoli Asset Management for IT. You will create licenses for different licenses capacity types such as installation-based, processor-based, points-based and Processor Value Unit (PVU). These licenses represent the software purchased by an organization. After creating the licenses, you will run audit reports for each capacity type to compare the authorized capacity represented by the licenses to the discovered capacity in the network environment.

● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 128   **IBM Tivoli Asset Management for IT**

IT Hardware Lifecycle Management
In this lab exercise, you will manage the asset lifecycle of an IT hardware asset within Tivoli Asset Management for IT. You will follow the process from acquisition to disposal. You will create a purchase order, receive the hardware asset, deploy the asset to the network, manage the location of the asset and retire the asset from service.

● ○ ○   **45**   *Audience: Operator, Administrator*

Lab 129   **IBM Maximo Asset Configuration Manager**

Managing Configuration Assets
In regulated industries with complex assets (such as transportation, aerospace and defense, nuclear and life sciences), management of asset configuration, component life accounting and equipment operational status is critical to the success of an operation. In this lab exercise, you will manage CM assets.

● ● ○   **75**   *Audience: User, Administrator*

Lab 130   **IBM Maximo Spatial Asset Management**

Linking an Asset to a geographic information system (GIS) Feature and Vice Versa
Maximo Spatial Asset Management uses read-only data from many external GIS data sources, such as the floodplain data from the Federal Emergency Management Agency (FEMA) and other web services. The product also imports data, such as building floor plans, from computer-aided design (CAD) systems, maintained in a CAD format. Having access to data that is stored in your organization's GIS system provides valuable insights for decision making.

● ● ○   **60**   *Audience: Administrator, Implementer*

Lab 131 IBM Maximo for Utilities

Building Compatible Unit Estimates
In the IBM Maximo for Utilities lab exercise, you will build and run Compatible Unit Estimates, review the estimates and accept one of the estimates.   ● ● ○   **75**   *Audience: User, Administrator*

Lab 132 IBM Maximo Space Management for Facilities

Getting Started with Maximo Space Management for Facilities
IBM Maximo Space Management for Facilities includes planning, design and drafting features to provide space management functionality. Space and assets are managed by using CAD files, which can be imported, exported and created. The ability to link a drawing's components with Maximo managed assets allows the integration of Maximo asset, location, personal and work order data with a graphical drafting tool, thereby integrating space planning and asset management. This hands-on lab exercise features two of the product's many components: Maximo Space and Infrastructure Manager and Move Manager. These features support data integration with the Maximo infrastructure in order to provide space planning, move management and reporting capabilities.
● ○ ○   **60**   *Audience: Administrator, Implementer*

Lab 133 IBM Maximo for Transportation

Fleet Optimization and Getting the ROI
The transportation industry is highly asset-sensitive and heavily dependent on availability, reliability and performance of fleet assets. IBM Maximo for Transportation uses industry best practices to help assets run more reliably and on time. In this lab exercise, you will configure the system for maintenance and warranty alerts, generate and process warranty claims and recoveries, and set up and import telematic data to monitor fuel consumption and asset health.
● ● ○   **60**   *Audience: Administrator, Implementer*

Lab 134 IBM Maximo Asset Management for Energy Optimization

Introduction
IBM Maximo Asset Management for Energy Optimization connects energy management data to the domain of IT and enterprise asset management. You can monitor your environment to identify ways to optimize energy consumption. You can view the floor plans of locations within your facility, and view graphical energy maps superimposed to the floor plan. The maps provide views of energy data such as heat, humidity and power consumption. This lab exercise is an overview of what the product is and does, and the key components to setting up and using the product.
● ○ ○   **60**   *Audience: Administrator, Implementer*

Lab 135 IBM Real-Time Compression Appliance

Deployment
In this lab exercise, you experience a hands-on deployment of an IBM Real-Time Compression Appliance. The exercise covers basic installation and an actual deployment for IBM N Series. You will test your installation to verify performance and compression rates.
● ○ ○   **90**   *Audience: Administrator, Implementer, Architect*

Lab 136 Power 7

Exploring Power 7
In this lab exercise, you will explore the Power 7® features and, if you are not familiar with defining an lpar, you will see how this is done with an emphasis on the differences from Power 6®.

Lab 137 PowerHA SystemMirror

Creating a PowerHA Cluster
In this lab exercise, you will create a PowerHA® SystemMirror 2 node cluster using the PowerHA SystemMirror version 6 product.

Lab 138 AIX

Using sed/awk
In this lab exercise, you will become familiar with the AIX commands sed and awk which enable you to easily work with strings when writing scripts.

Lab 139 Power 6+

Live Partition Mobility
In this exercise, you will move an lpar from power system to another without stopping an application.

Lab 140 VIO server

Implementing Shared Ethernet Fallover
In this exercise, you will learn how to prevent a VIO server from being a single point of failure for ethernet access to an lpar.

Lab 141 AIX

AIX Security Features
In this exercise you will explore the security features of AIX 6.1.

Sessions are marked according to technical level.
Introductory ● ○ ○   Intermediate ● ● ○   Advanced ● ● ●