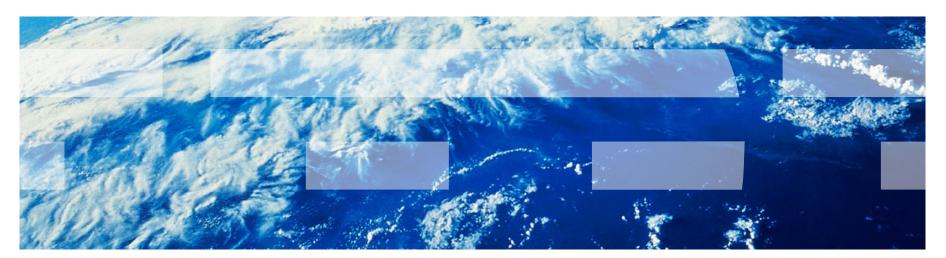






Operasyonel Destek Sistem Uygulamaları Netcool & Maximo



Agenda

Netcool

- Overview
- NetCool Product Family
- Vodafone Case

Maximo

- Overview
- Architecture
- UCell Case

Questions/Answers



Netcool Overview

 The Netcool service assurance portfolio of products are used to help communications service providers (CSPs) consolidate software systems within their network operation environment and integrate third party products.

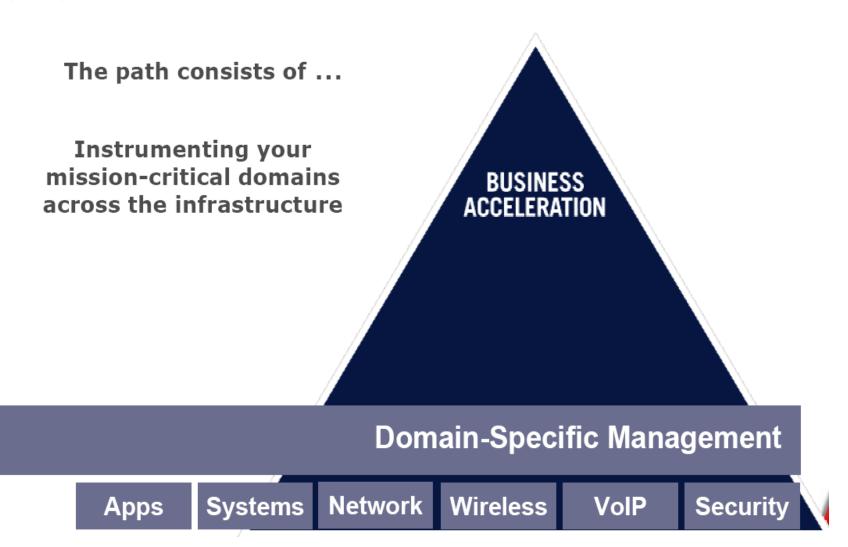


Service Assurance Overview





Aligning Operations and Infrastructure





Aligning Operations and Infrastructure

The path consists of ...

Consolidating and resolving service- affecting events across the infrastructure in real-time



Consolidated Operations Management

Domain-Specific Management

Apps

Systems

Network

Wireless

VoIP

Security



Aligning Operations and Infrastructure

The path consists of ...

Mapping the infrastructure to the business, so that linkages are clearly understood



Business Service Management

Consolidated Operations Management

Domain-Specific Management

Apps

Systems

Network

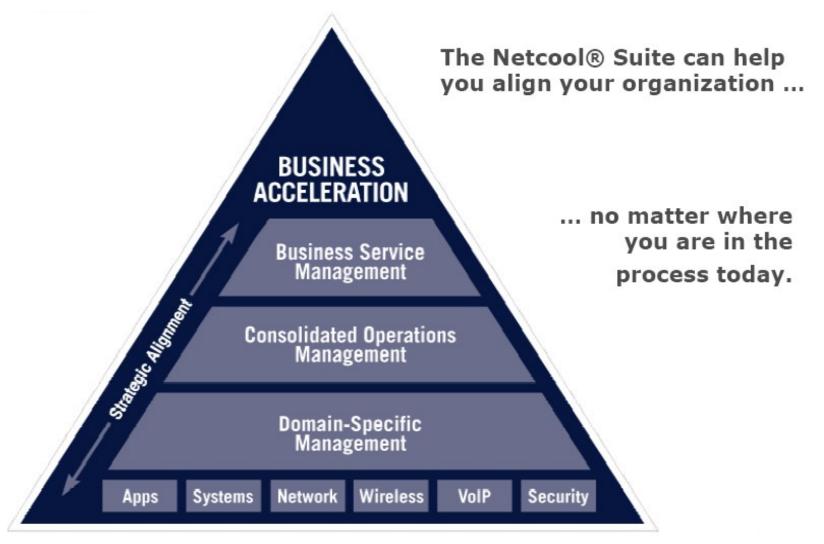
Wireless

VolP

Security



Netcool Suite is the Right Solution





IBM TivoliNetcool/OMNIbus

- Delivers real-time, centralized supervision and fault/event management for complex IT domains and next generation network environments.
- Core component to collect, consolidate, and de-duplicate events and present real-time user configurable views of faults in the network.

IBM Tivoli Netcool/Webtop

- Real-time Web-enabled interface that enables monitoring and viewing of high volumes of management data from Netcool/OMNIbus
- IBM Tivoli Netcool Precision (ITNM)
 - Precision for IP Networks[™] is a network management product that provides Automated Network Discovery & Modeling, Active Monitoring, Topology-based Root Cause Analysis and Network Visualization



IBM Tivoli Netcool/Impact

- A policy engine, commonly used for 'event enrichment' with business and service context—its ability to provide operators in the NOC with information about the effect of faults that enables prioritized response based on business impact.
- Administrators can define specific actions based on specific events and these actions can include adding business context to events, business impact analysis, advanced event correlation, notification and escalation, and virtually any custom data manipulation and action

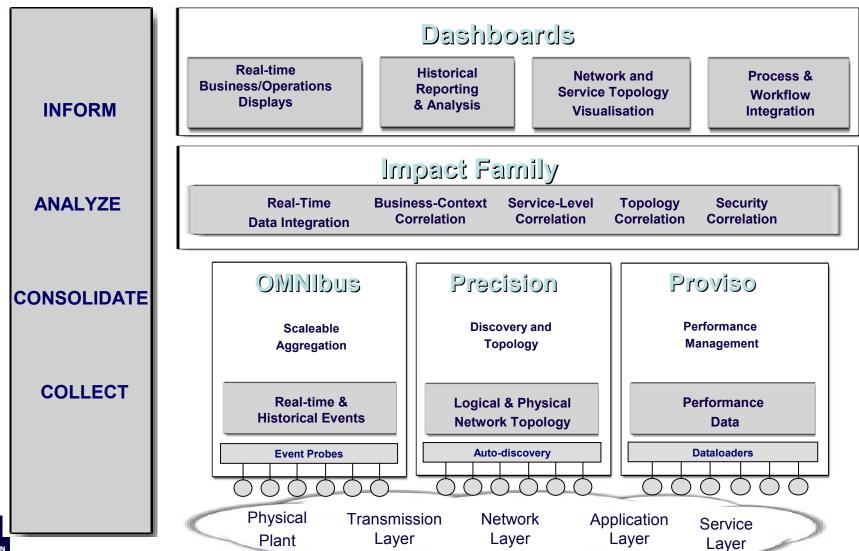
IBM Tivoli Netcool Service Quality Management Center

- A single, integrated dashboard based solution that is based on a modular architecture. It included a set of extensible, off-the-shelf service-specific solutions to reduce total cost of ownership.
- TNSQMC consists of:
 - Tivoli Netcool Business Service Manager
 - Tivoli Netcool Service Quality Manager
 - Tivoli Netcool Customer Experience Manager

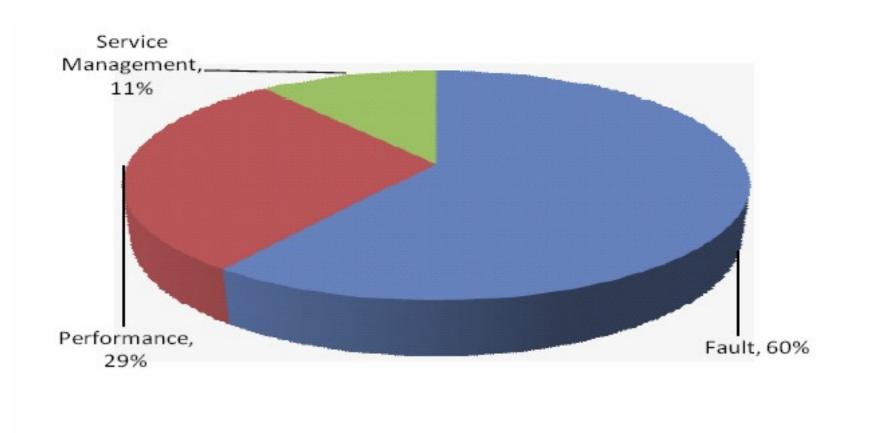


- IBM Tivoli Netcool Performance Manager (Proviso)
 - Performance management solution for fixed, mobile and convergent networks that collects performance data and generates reports that provides visibility needed to help minimize service degradations, disruptions, and troubleshooting time.
 - TNPM provides performance metrics to manage all aspects of a CSP's wireless, wireline or IP network infrastructure
- IBM Tivoli Netcool Reporter
 - Netcool Reporter is a web-based, client-server application that provides accurate reporting on a database data repository
- IBM Tivoli Netcool Network Mediation
 - A solution to collect, process and distribute traffic data for telecommunications networks





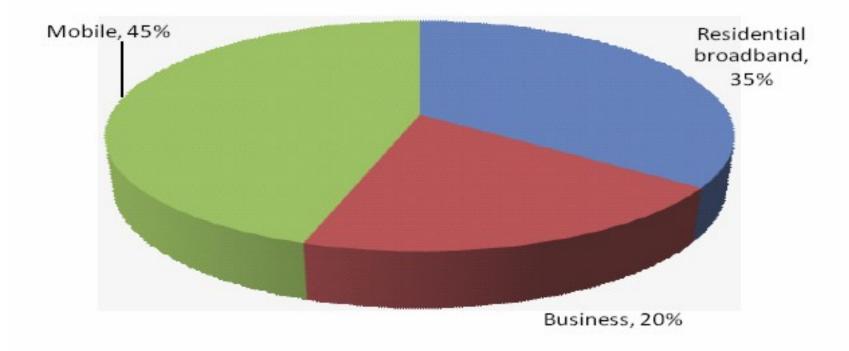
Netcool Overview



Source: Company reports, Analysys Mason



Netcool Overview



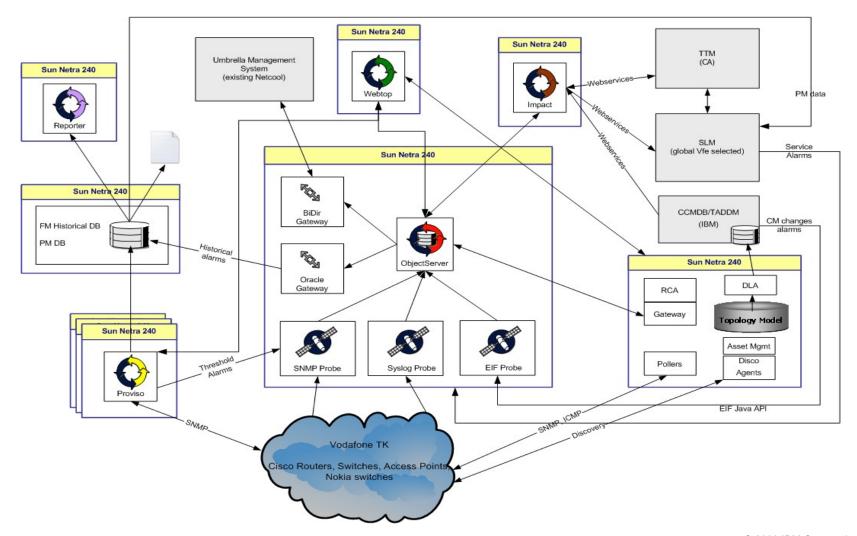
Source: Analysys Mason







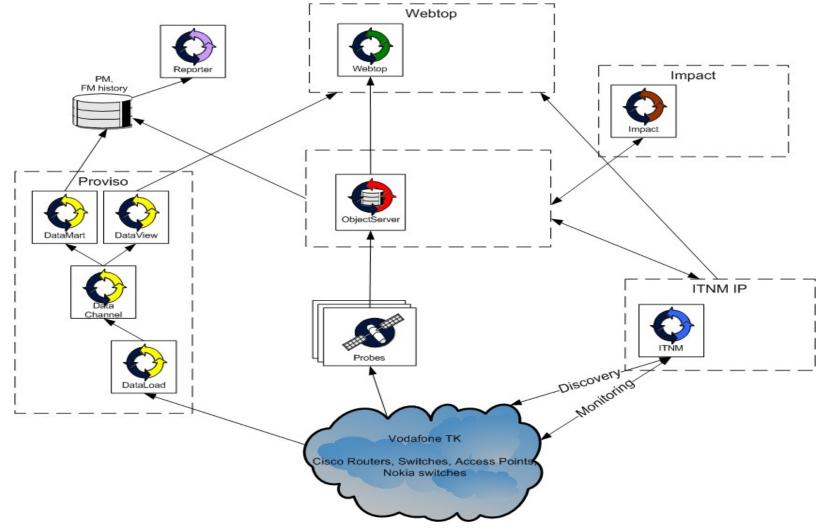
Vodafone NetCool Çözümü







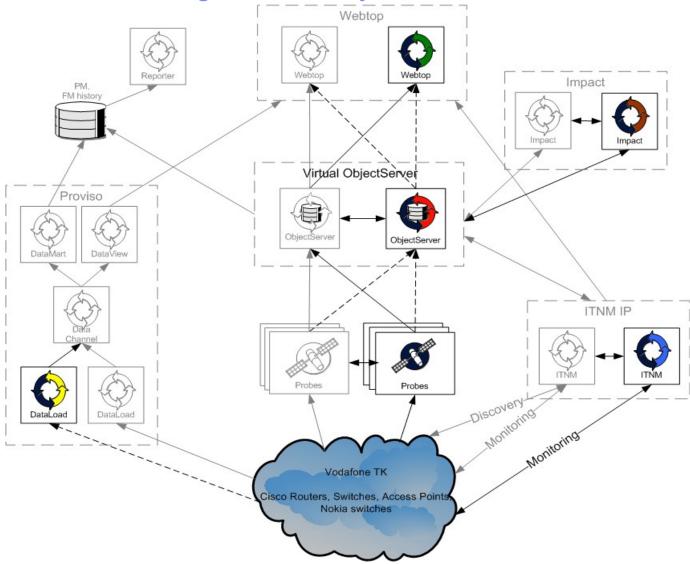
Configuration Without High Availability







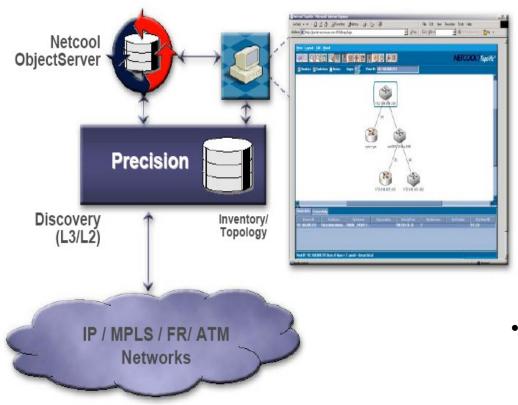
Configuration With High Availability







Netcool/Precision Architecture (ITNM)



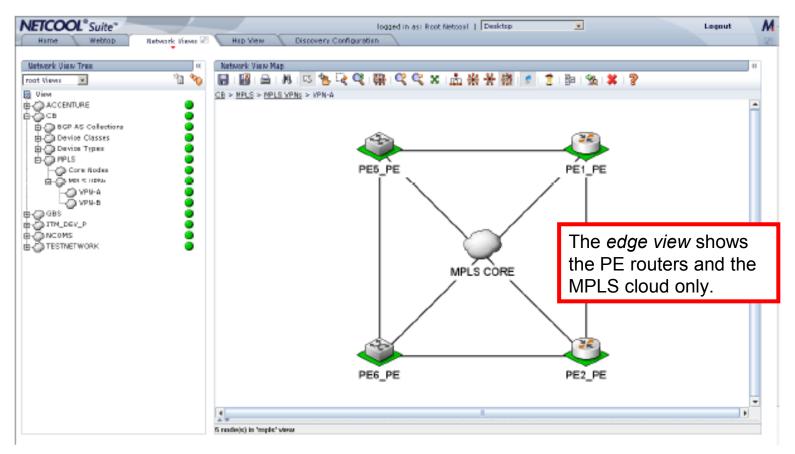
- Precision for IP Networks[™] is a network management product that provides:
 - Automated Network Discovery & Modeling
 - Active Monitoring
 - Topology-based Root Cause Analysis
 - Network Visualization
 - Extensive support for MPLS, including Layer 3 IP VPNs and Layer 2 technologies
- Precision IP contains two major features:
 - Network Discovery and Modeling
 - Network Monitoring and Root Cause Analysis (RCA)







Precision MPLS IP VPN Edge View



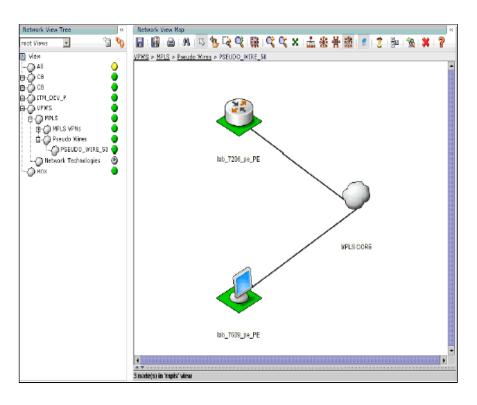
- Discovery
- Visualization
- RCA



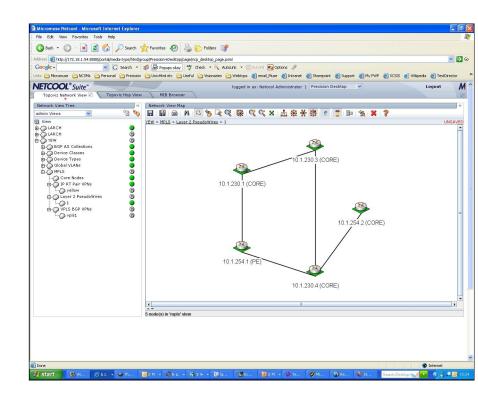




Precision MPLS Layer 2 VPN Views



Edge View

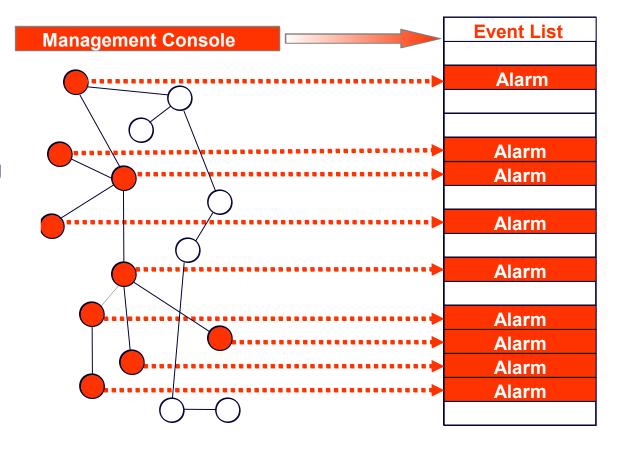


Core View



Precision- Understanding Topology-Based Root Cause Analysis

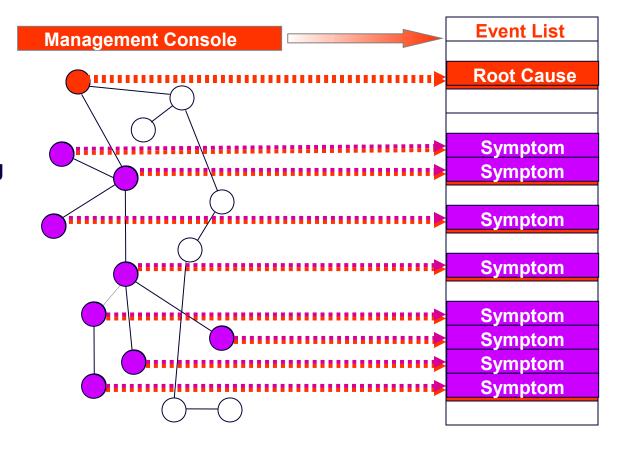
By understanding the relationships between devices it becomes possible to understand the relationships between the events that are originating from those devices





Understanding Topology-Based Event Correlation & Root Cause Analysis

By understanding the relationships between devices it becomes possible to understand the relationships between the events that are originating from those devices

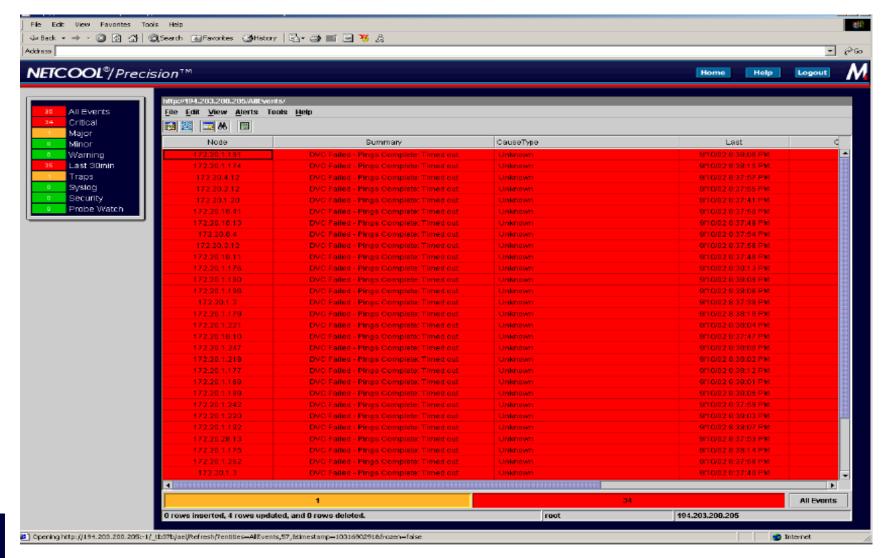








Precision Root Cause Analysis - 1

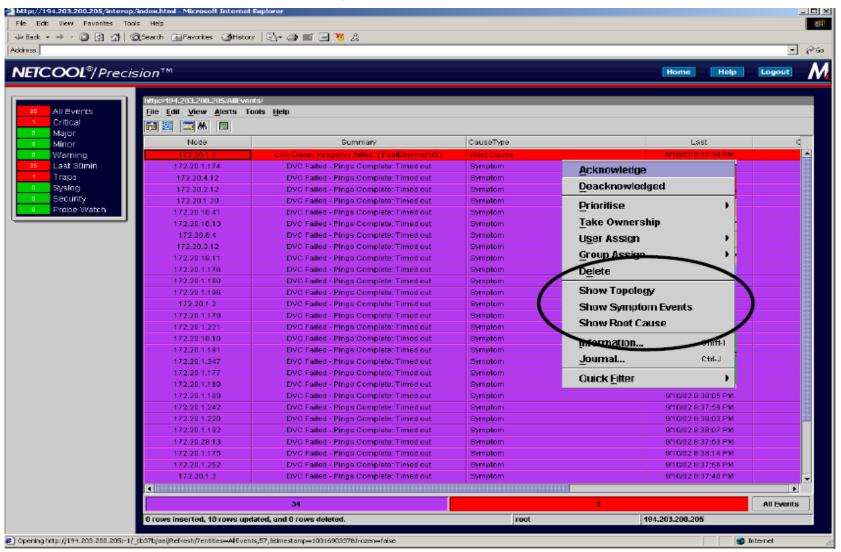








Precision Root Cause Analysis - 2

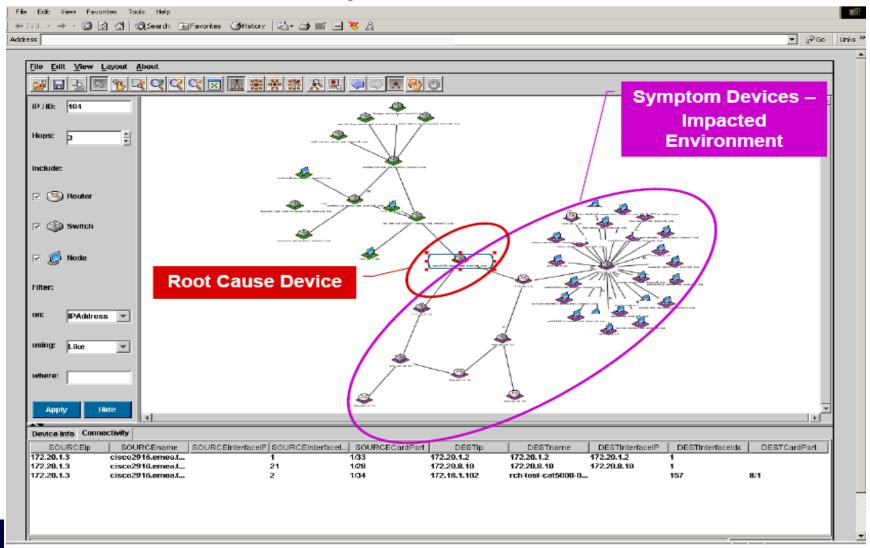








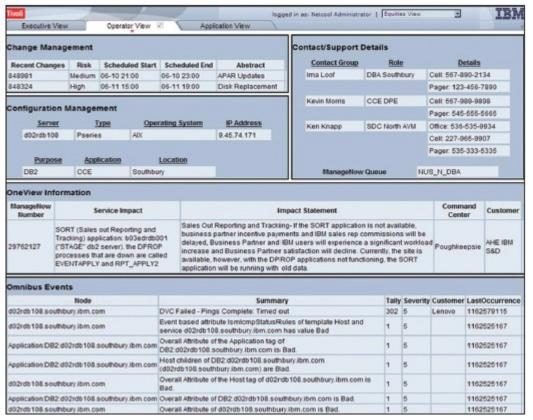
Precision Root Cause Analysis - 3







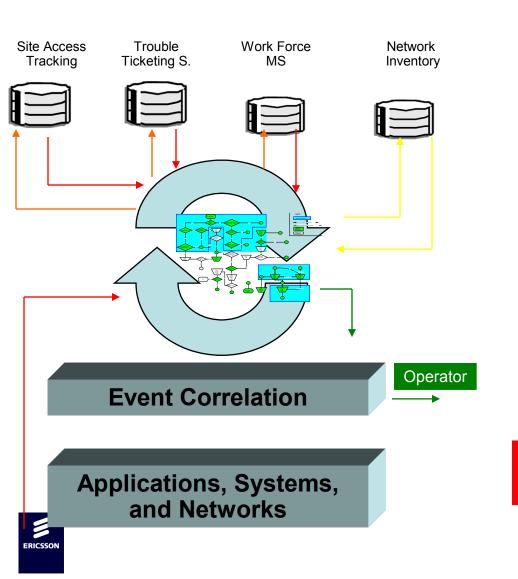
Impact



- Automatically correlate and prioritize event response according to business impact
- Help maximize productivity by leveraging a common platform for universal access to real-time data, events and indicators
- Improve time to resolution through real-time monitoring and analysis of business events
- Deliver actionable information in userspecific, Web-based views
- Automate workflows to help maximize operator efficiency and productivity
- Protect and leverage existing data stores by virtualizing access to distributed information



Customer Production Use Case with Impact



Events/thresholds are generated at each site and are received/correlated by Tivoli

Impact verifies if a field engineer is on site

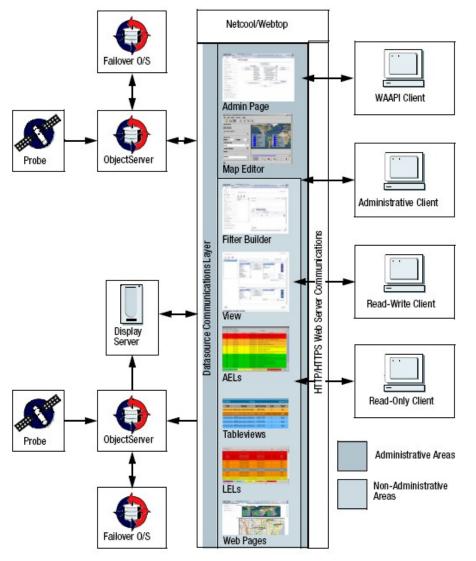
Impact verifies if an incident has been already dispatched for this event on this site

Impact verifies if a maintenance task has been scheduled for this site

Impact enriches alarm with inventory info and with field engineering references

The operator generates a Trouble Ticket.
The TT is automatically populated with relevant info.

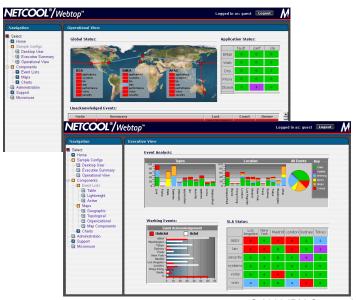
Netcool Webtop



Webtop delivers graphical maps, tables and event lists to the remote users via HTML and Java

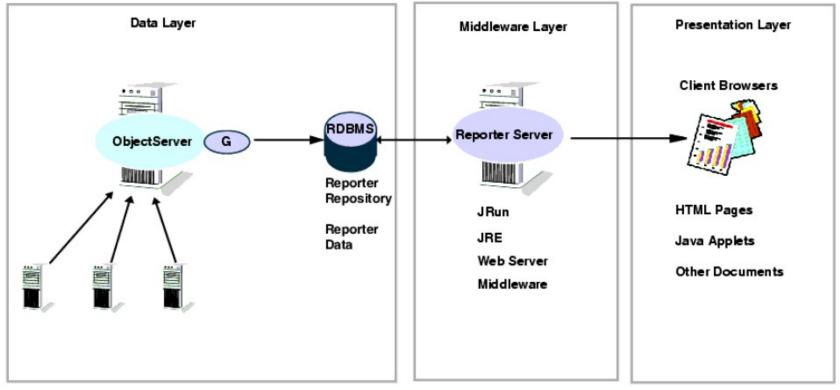
Users can also manage Netcool alerts with the Netcool/Webtop's flexible interface

The Webtop server can connect to many different ObjectServers to retrieve the required information





Netcool Reporter

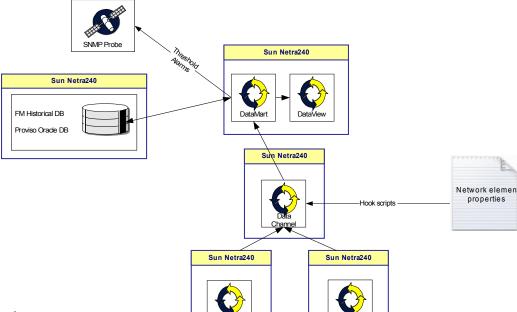


- Netcool Reporter is a web-based, client-server application that provides accurate reporting on a database data repository
- Netcool Reporter includes a set of predefined reports for ObjectServer data
 - Netcool Reporter can also generate reports from data sources populated by gateways supplied with other Netcool products.





Proviso Architecture



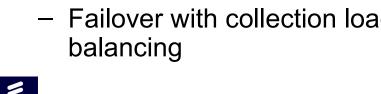
Vodafone TK

Cisco Routers, Switches,

Nokia switches

Cisco Netflow Collector

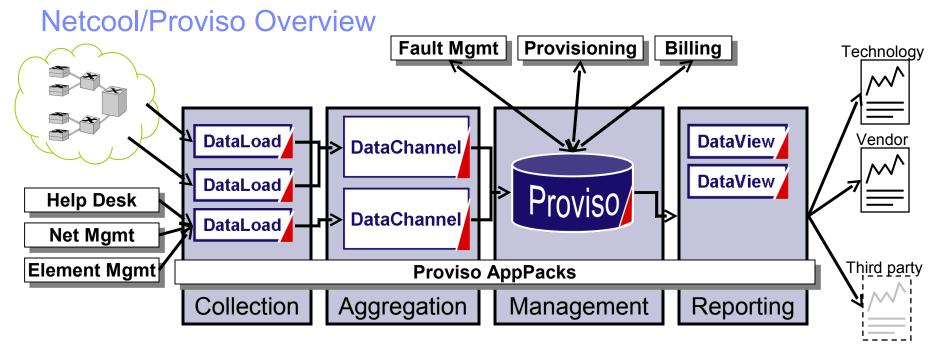
- Scalable architecture
 - Up to 20k monitored resources (Case specific)
 - 5 minutes raw data frequency supported (Case Specific)
 - Failover with collection load





Other bulk

(optiona)



- Scalable, fast, manageable, pay-as-you-grow
- DataLoad: Inexpensive to deploy, easy to manage.
- DataChannel: Continuous (not batch or on-demand) aggregation reduces hardware costs and query times.
- DataMart: Single point simplifies OSS integration and correlation for reports
- DataView: Attractive internationalized 10-second on-demand reports and 1-second real-time views.
- AppPack: Provide Technology / Vendor Domain Configuration and Customisation
- Multiple levels of Carrier-class Scalability and Resilience



Advantages of Netcool Solution

- The following properties are advantages of Netcool compared to competitive products
 - Large probe library (450+ probes, mostly IP)
 - Adapters for Remedy/Cramer etc available
 - Good flexibility and scalability from very large to moderate networks. Perfect fit for small networks.
 - Ease of operation and maintenance
 - Customization and adaptation easiness
 - Rich feature set: Better event filters,
 - Web client and working with events is better
 - Less time to develop automations
 - IP and SNMP Management
 - Integration into Service Level Management.



Agenda

Netcool

- Overview
- NetCool Product Family
- Vodafone Case

Maximo

- Overview
- Architecture
- UCell Case
- Questions







Maximo

Maximo is the Enterprise Asset Management solution of IBM Tivoli Software Family.

| Tivoli. software | IBM. |
|---|---|
| Welcome to Maximo; please enter your information. user name password Sign In forgot your password? | new user? register now select a language Turkish English |
| ⊚ Copyright IBM Corp. 2007. All rights rese | rved. See product license for details. |



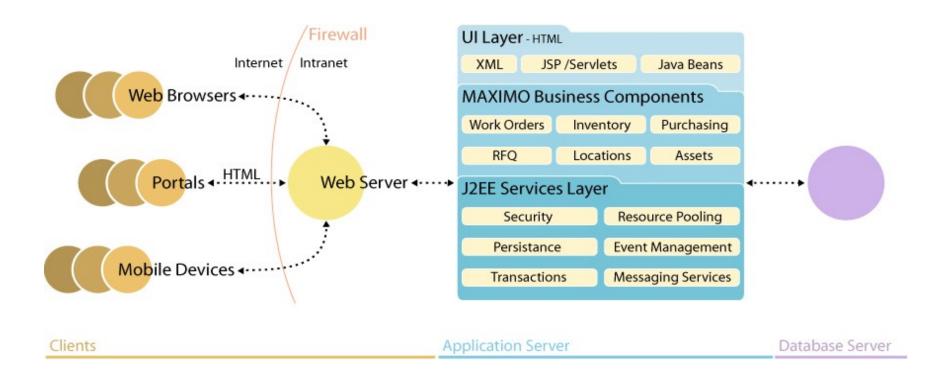
Maximo - Architecture

- Technology Concepts SOA, Web Services
- Understanding the J2EE Architecture, benefits, positioning
- How this architecture helps position Maximo in key areas
 - Deployability
 - Scalability and Reliability
 - Portability
 - Interoperability
 - Flexibility and Configuration
 - Upgradability





Maximo – Architecture Components







Modules

- Asset Management
- Inventory Management
- Contract Management
- Rollout Management
- Workorder & Ticket Management



Asset Management Module

Asset Management

- Assets
- Locations
- Failure Codes
- Site
- Cell

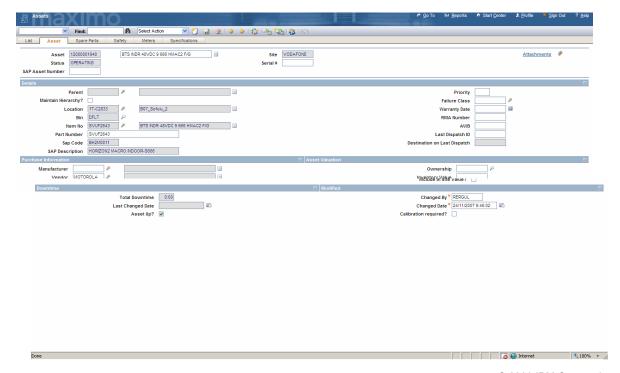






Assets

Maximo can manage assets from purchase to salvage - from the beginning to the end - of an assets life cycle.







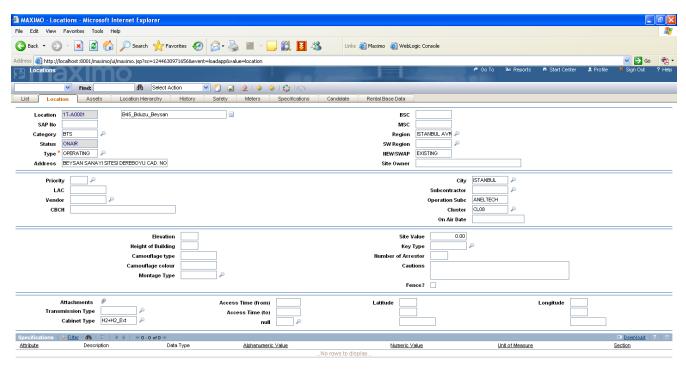
Local intranet

Asset Management Applications

Done

Locations

Location is generally defined as a place where assets are operated, stored or repaired.







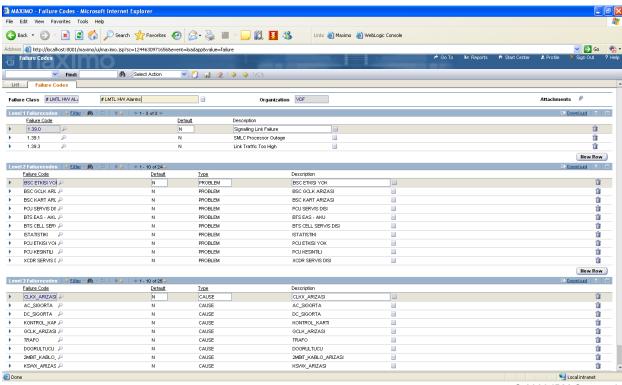


Failure Codes

Failure code is an element of a failure hierarchy.

In Maximo a failure hierarchy consists of Problems, Causes, and

Remedies.



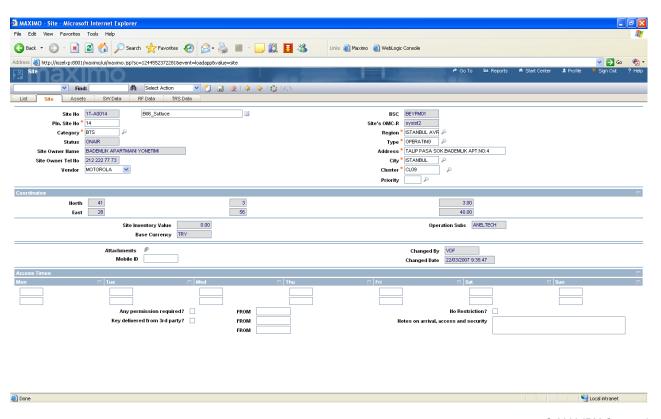






Site

Site records keeps information about sites on Maximo.



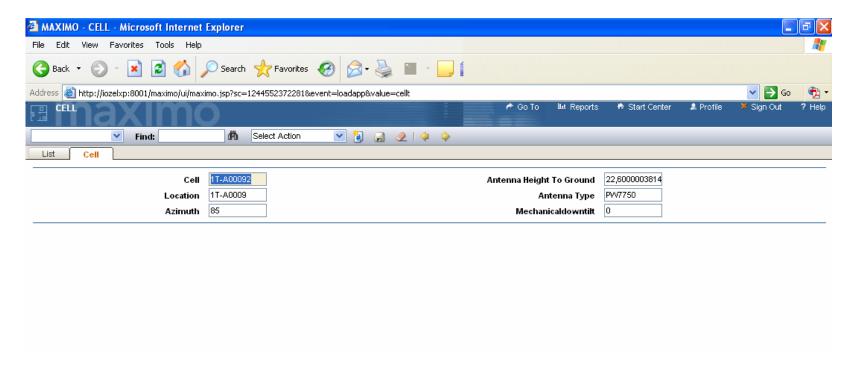






Cell

Cell records keeps information about cells on Maximo.





Inventory Management Module

Inventory Management

- Item
- Inventory
- MR (Material Request)



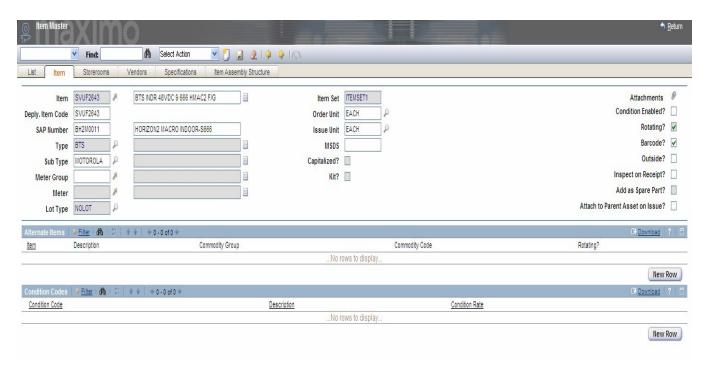




Inventory Management Applications

Item

Item record defines an item or material that is stocked in a company storeroom.





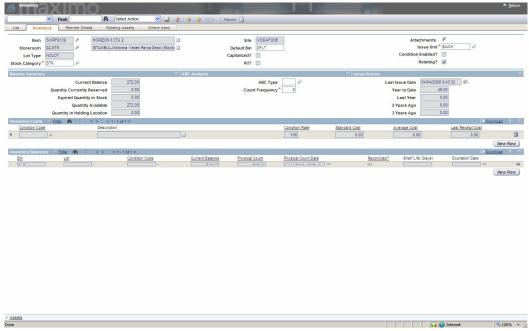




Inventory Management Applications

Inventory

Inventory is a listing of all items, materials, and rotating assets that are stored in your storerooms. Using the Inventory application you can track item balances down to the bin and lot level for a storeroom, as well as item costs using condition codes.





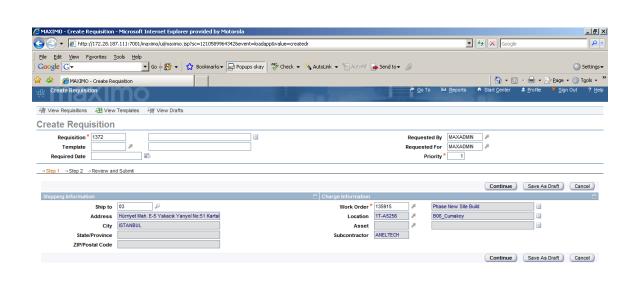




Inventory Management Applications

Material Request

All material requests from storerooms made via Maximo









Contract Management Module

- Contract Management
 - Contracts



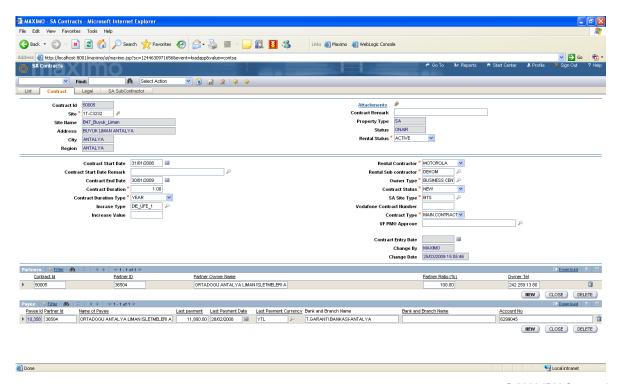




Contract Management Applications

Contracts

Several types of Contacts can be managed by Maximo.









Roll-out Management Module

- Rollout Management
 - Rollout Tracking

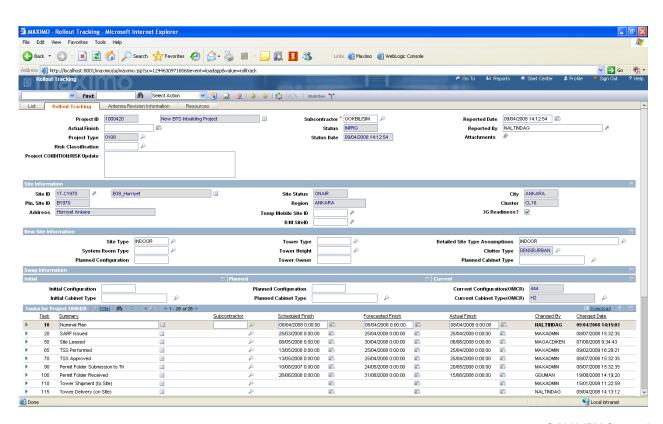






Roll-out Management Applications

Rollout Tracking





Workorder and Ticket Management Module

Workorder & Ticket Management

- PAR (Planned Activity Request)
- WOR (Work Order Request)
- TT (Trouble Ticketing)
- TR (Trouble Reporting)
- Workorder Tracking

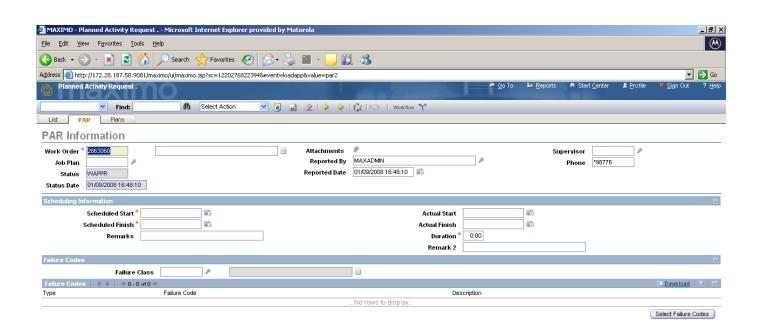






Planned Activity Request

PAR Application had been developed for tracking planned activities.



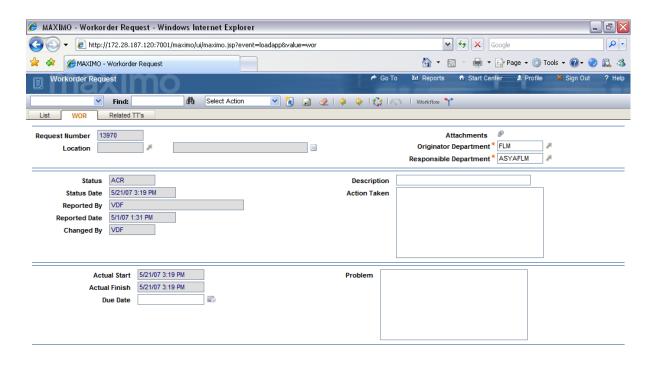






Work Order Request

WOR application is used by Maximo users to request work orders from one group to other and recording it.



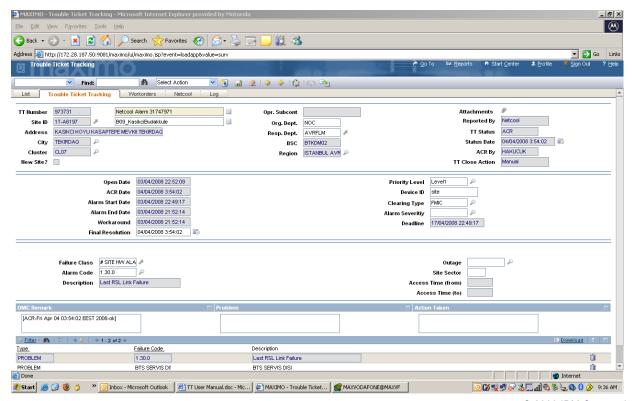






Trouble Ticketing

Trouble Ticket Tracking screen enables us to create, edit and query the Trouble Tickets



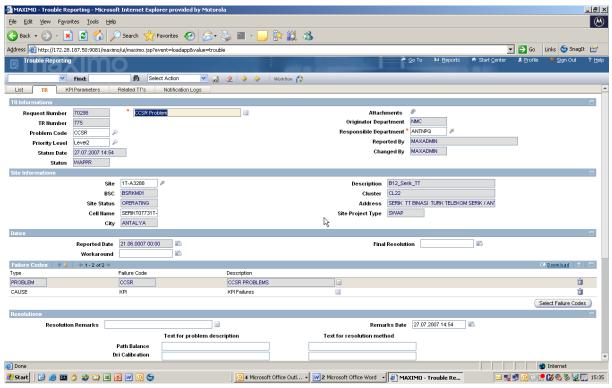






Trouble Reporting

TR application is an application that used to track the created problems about the sites.

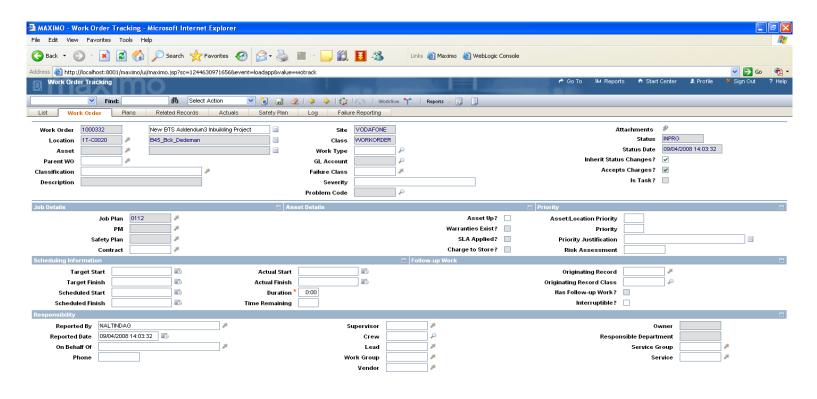








Workorder Tracking





Done

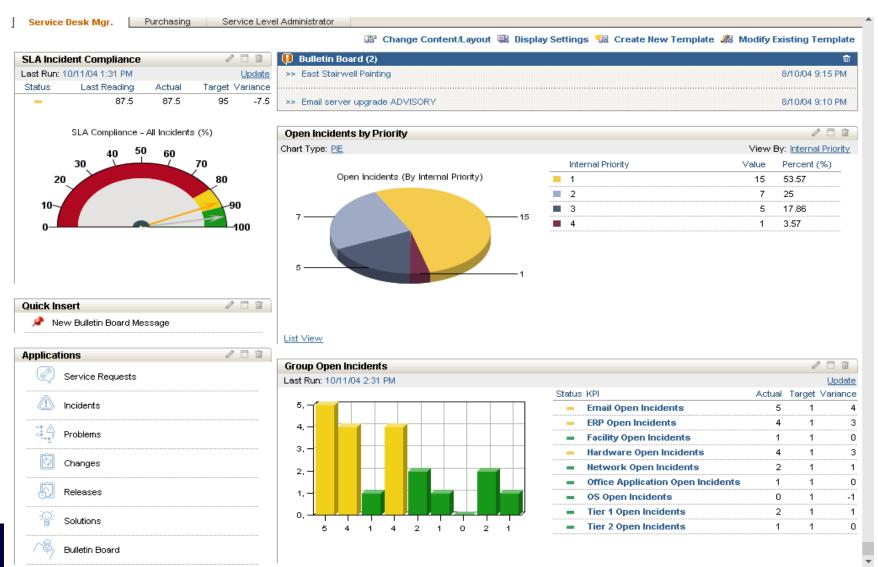
🧐 Local intranet

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Maximo - StartCenter

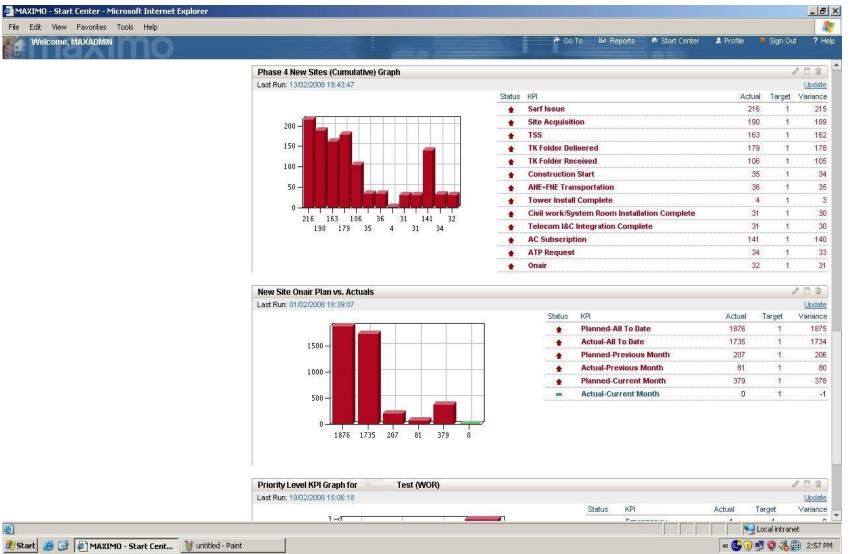








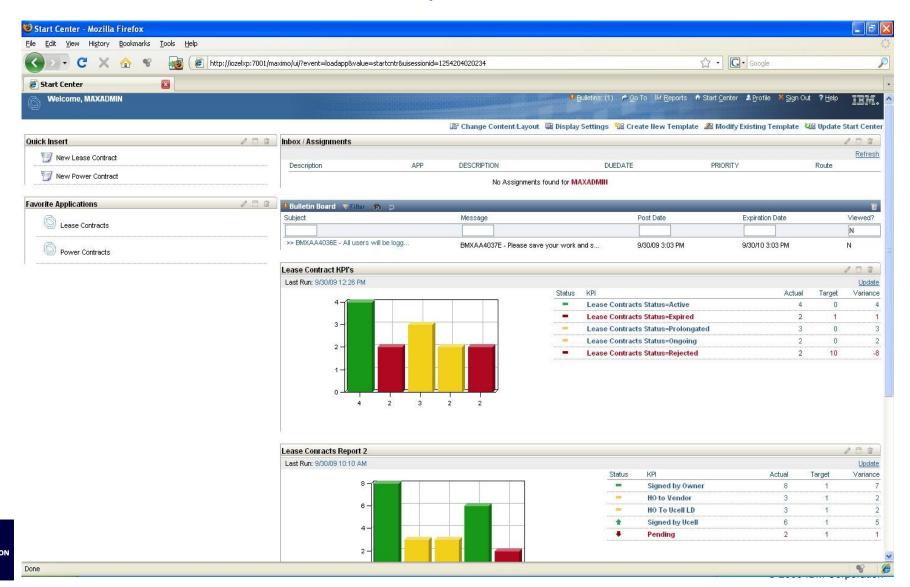
Maximo - StartCenter - Rollout KPIs



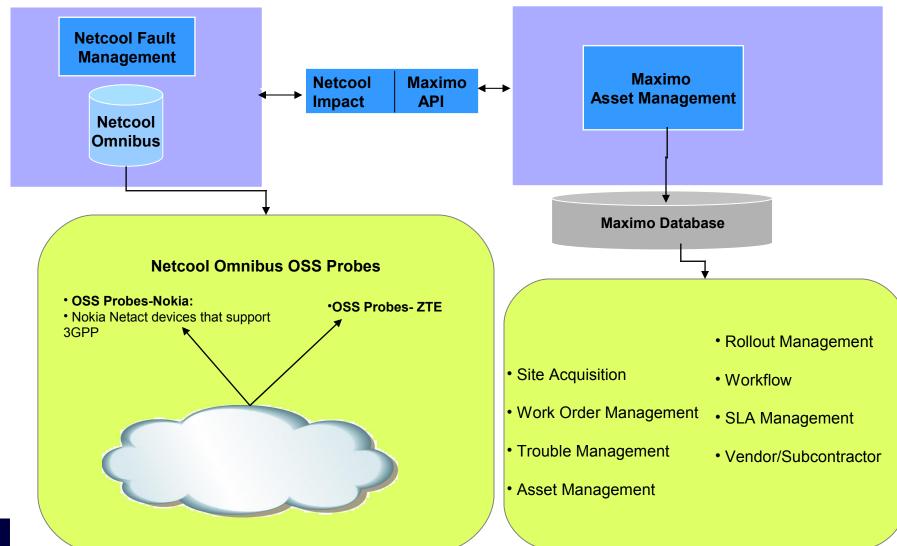




Maximo – StartCenter – Site Acquisiton KPIs



Ucell IBM Tivoli Umbrella Management Solution

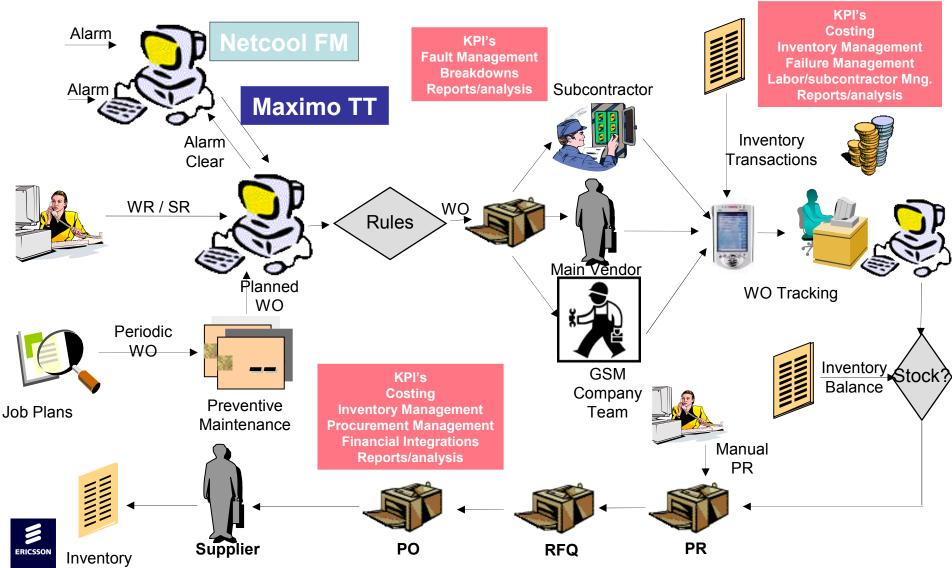








Maximo Inventory and Trouble Management



"Vodafone-Libertel's first priority is that its customers are able to make calls. This requires all the parts of the network to be continuously available, and in order to achieve this we want to deal with defects as quickly as possible. Having to wait for a spare part is unacceptable for us. With Maximo we can even identify which parts are available in the engineer's vehicles."

Vodafone-Libertel





THANKS & & QUESTIONS?





Bu sunum 15 Ekim 2009 tarihinde Ankara Sheraton Hotel'de yapılan Yazılım Zirvesi 2009 için hazırlanmıştır.

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