

Increasing Efficiency of Network Monitoring Process



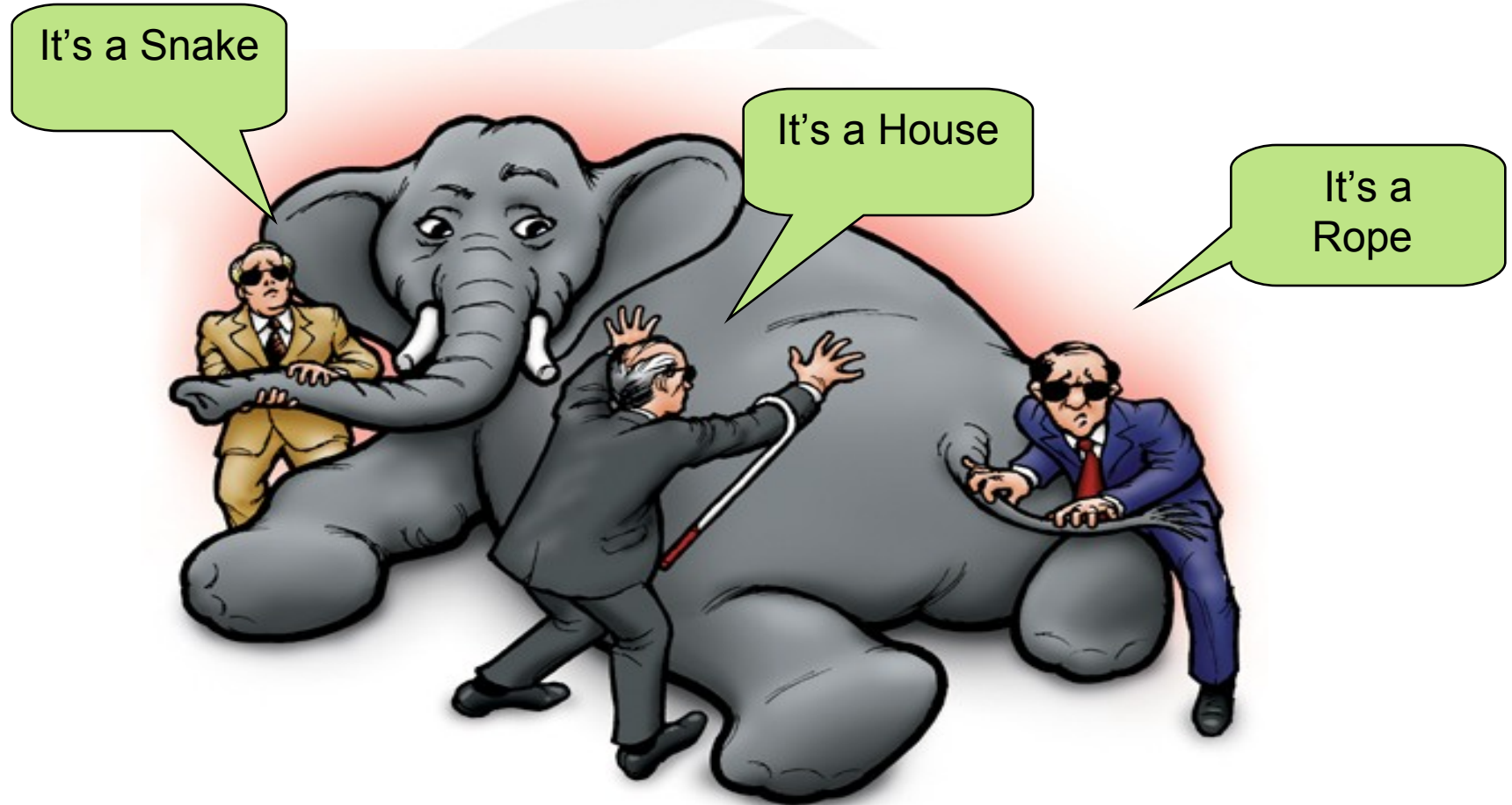
Case Study: Vodafone Turkey

Bülent Okta

Manager – System Tools Management

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- Netcool & Maximo Implementation in Vodafone Turkey OSS environment
 - Case study: 2G/3G Network Monitoring Process

Network monitoring issues

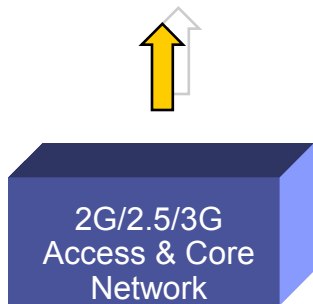
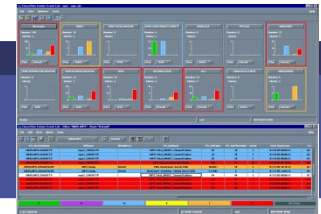


Netcool & Maximo Implementation @ VF TR

- **Netcool is an integrated fault management system, Maximo is a Trouble ticketing and Inventory Management System for Network Management Center**
 - Netcool / Omnibus Fault Manager Version 7.2
 - Netcool / Impact Policy Manager 4.1
 - Netcool / Reporter Historical Reporter Warehouse 2.1
 - Netcool / Webtop Portal Server V 2.1
 - ITM Monitoring 6.1
 - Maximo Application Servers (rel. 6.2)
- **Netcool is supporting the fault management process for**
 - 2G/2.5G/3G Radio & Switched Core Network
 - Transmission
 - Packet Core Network
 - VAS

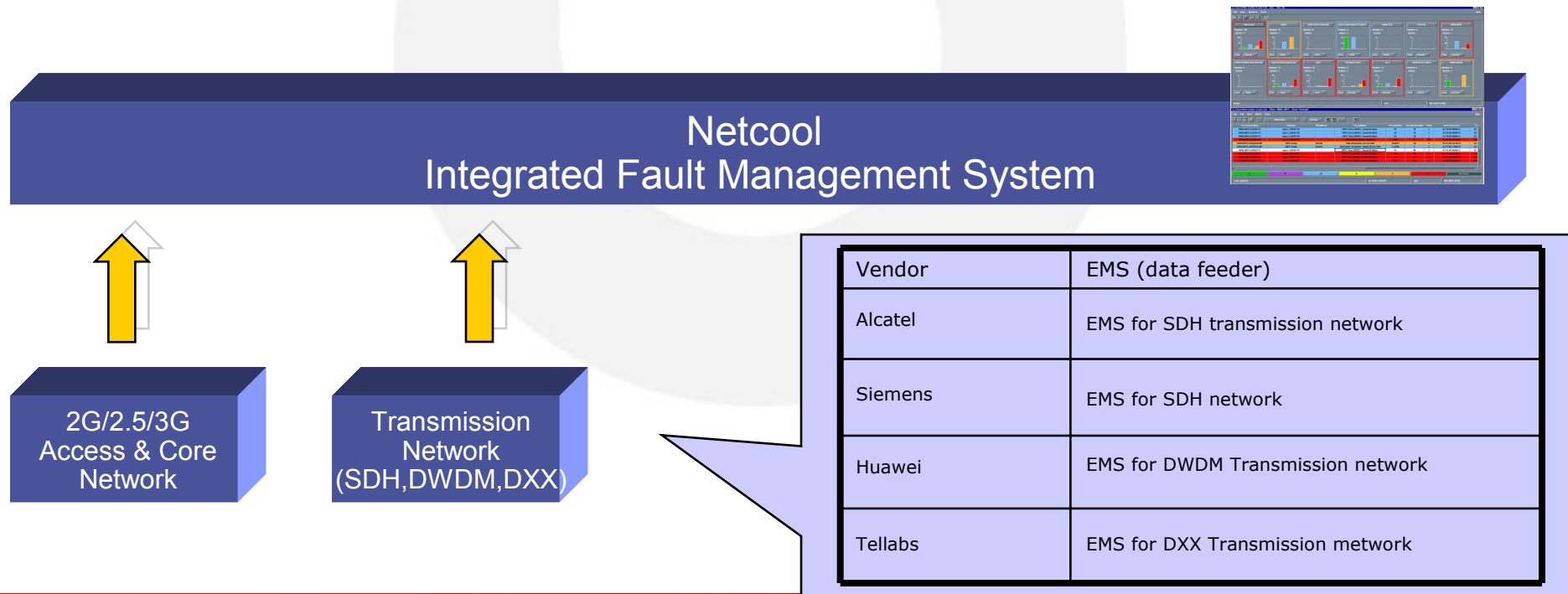
Netcool & Maximo Implementation @ VF TR

Netcool Integrated Fault Management System

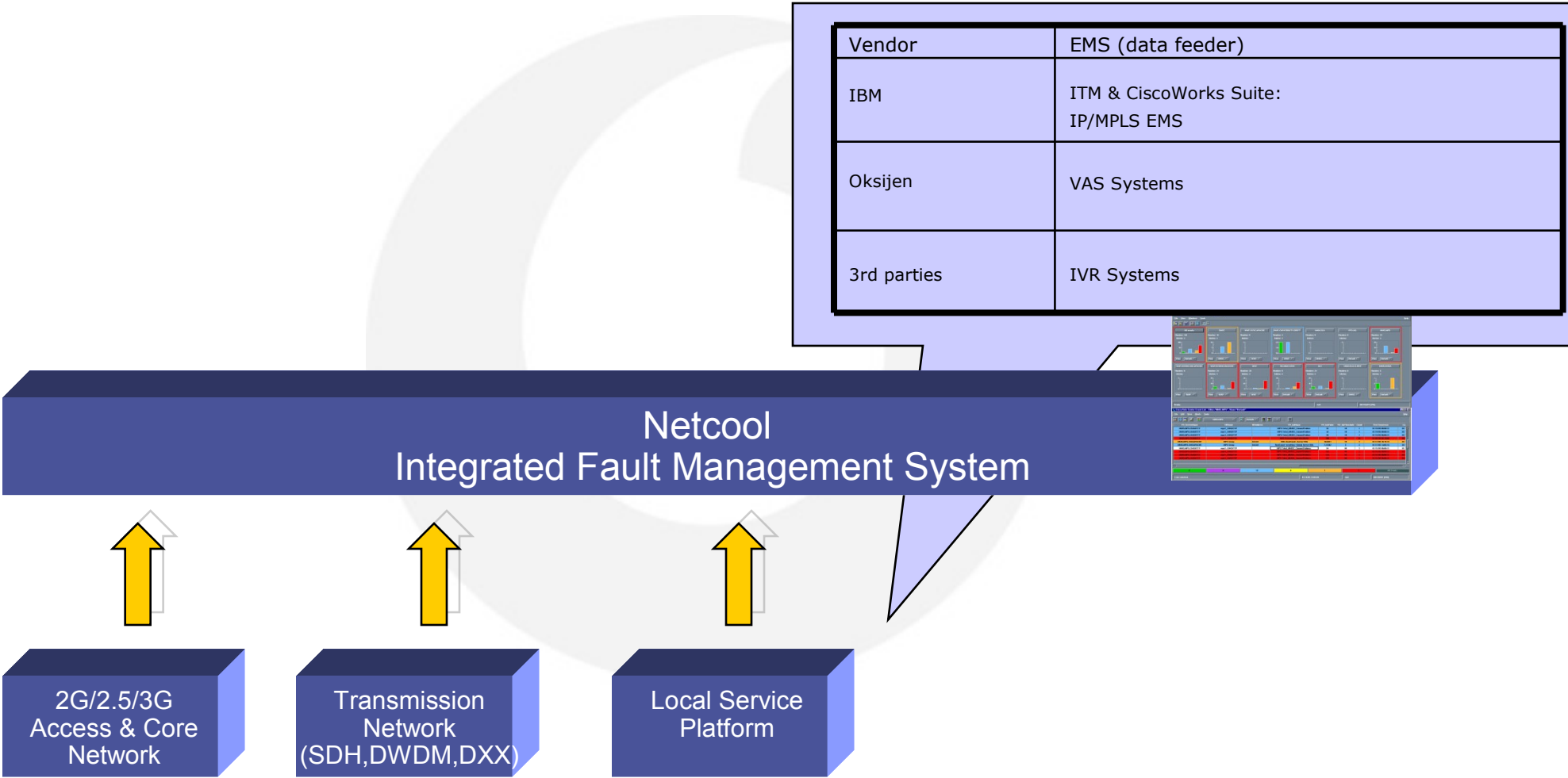


| Vendor | EMS (data feeder) |
|----------|--|
| Motorola | OMC-R; EMS for 2G Access network |
| NSN | NetAct OSS; EMS for Core & Pocket Network |
| Ericsson | OSS RC; EMS for GGSN |
| Huawei | M2000; EMS for 3G Access Network |

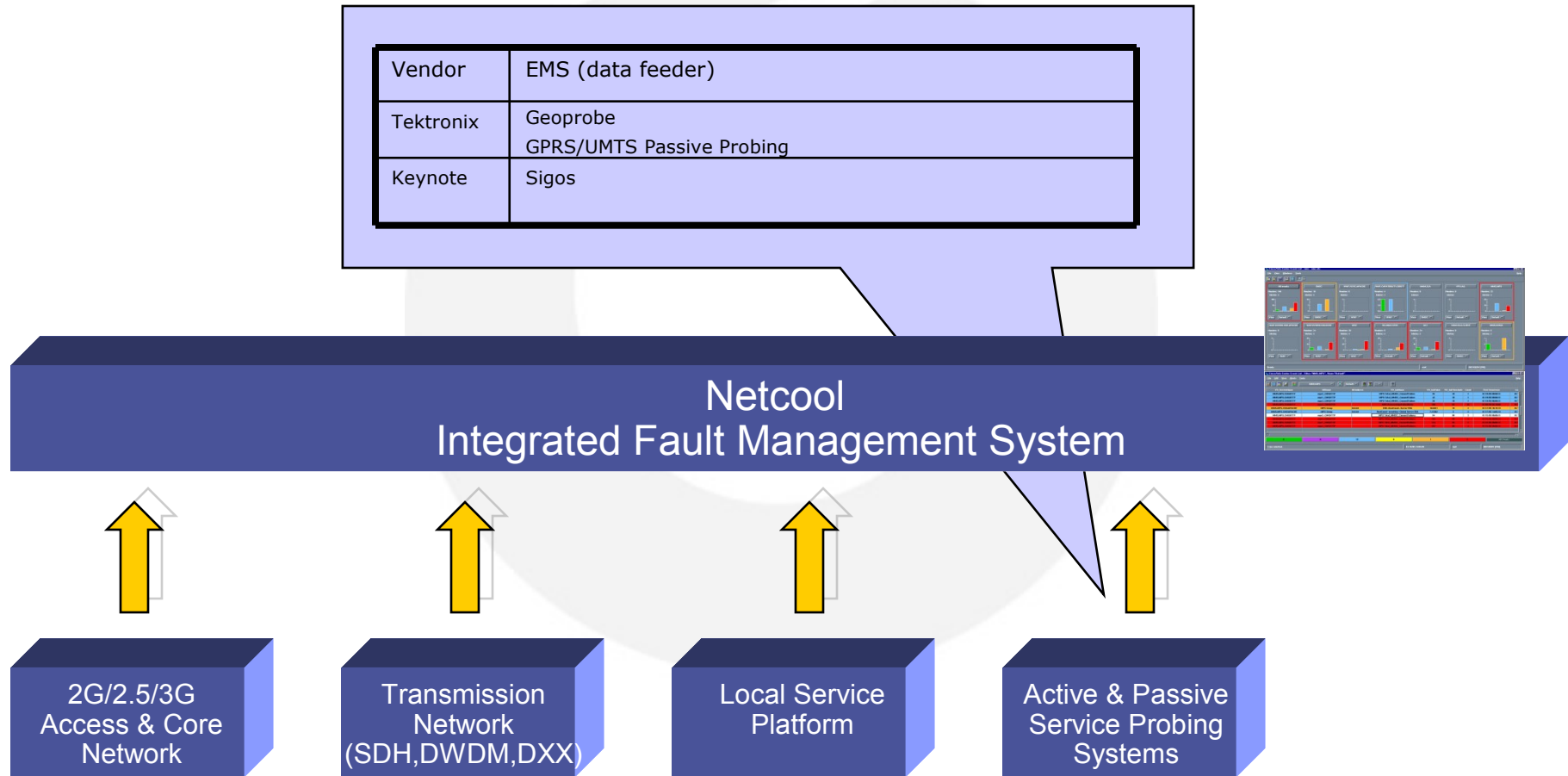
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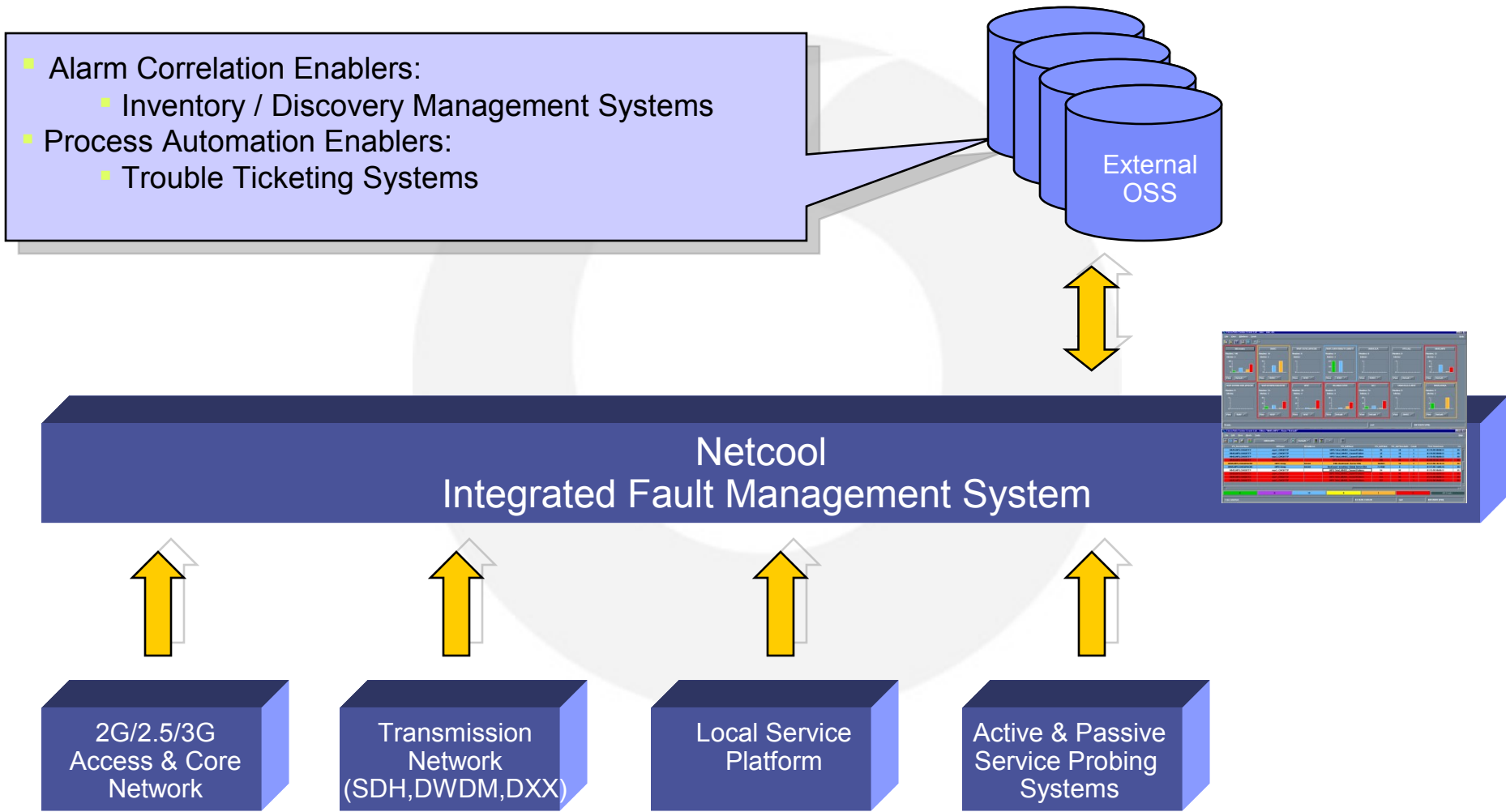
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Main Drivers & Benefits

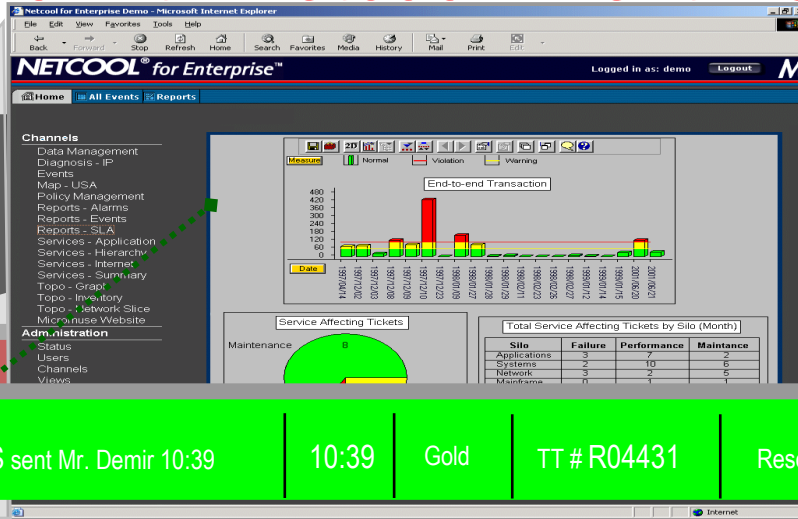
- **Reduce the number of Monitoring Interfaces for NOC operators**
 - Managed environment needs about 15 EMS Alarm Monitoring Interfaces !!
 - Integrated / Centralized alarm monitoring tool:
 - Standardize monitoring processes across different technology domains
 - Reduce Training Costs (for specific EMS for 1st lines)
 - Simplify process of re-use of NOC resources
- **Implement aggressive suppression / de-duplication policies**
 - In network environment alarm lifecycle is not managed properly by network elements (repeated instances of the same alarm, related to the same fault, generate “noise” on monitoring process)
- **Leverage information stored in external components of OSS environment**
 - Inventory information needed to simplify faults analysis and prioritization



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Sample Scenerio with Netcool Event Management

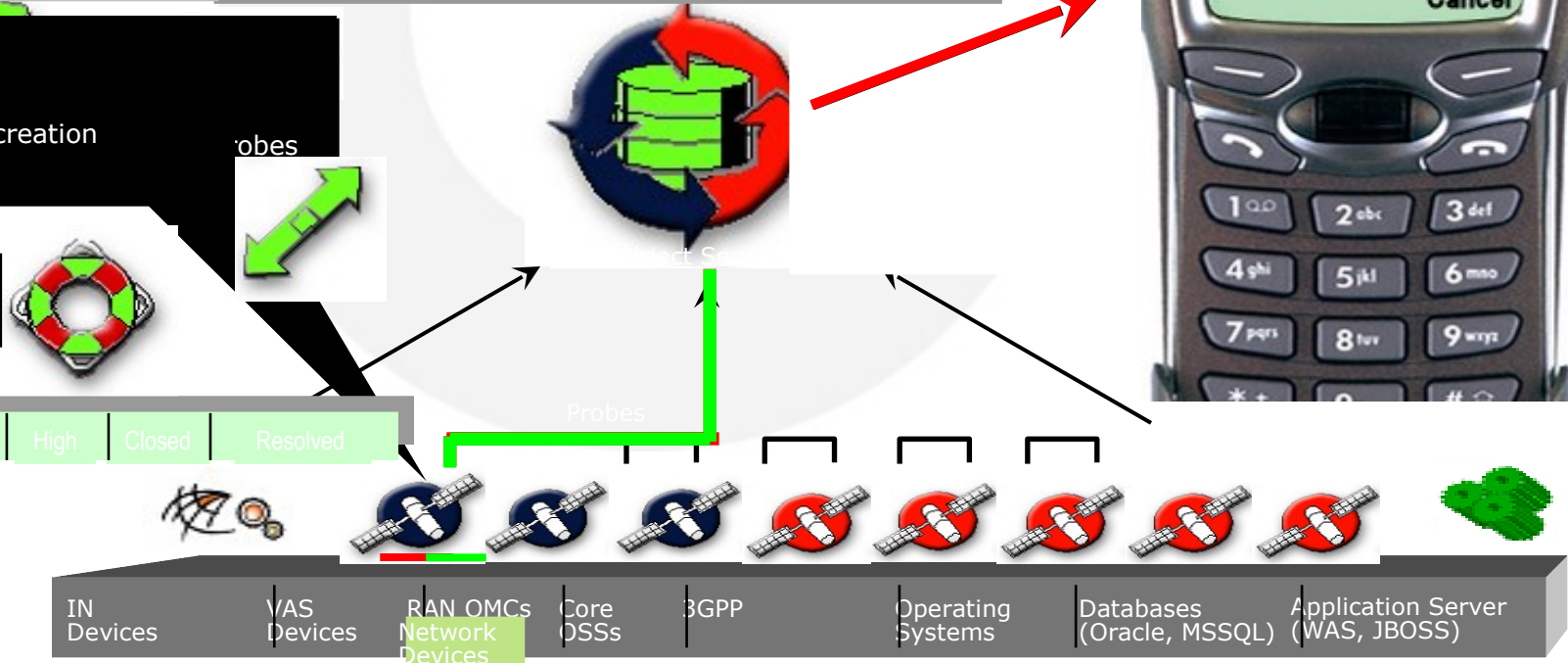
- Real time Alarm enrichment
- Defined Actions
- Acknowledgement



BNL | İzmir UP | SMS sent Mr. Demir 10:39 | 10:39 | Gold | TT # R04431 | Resolved 00:04 | In SLA by 00:26



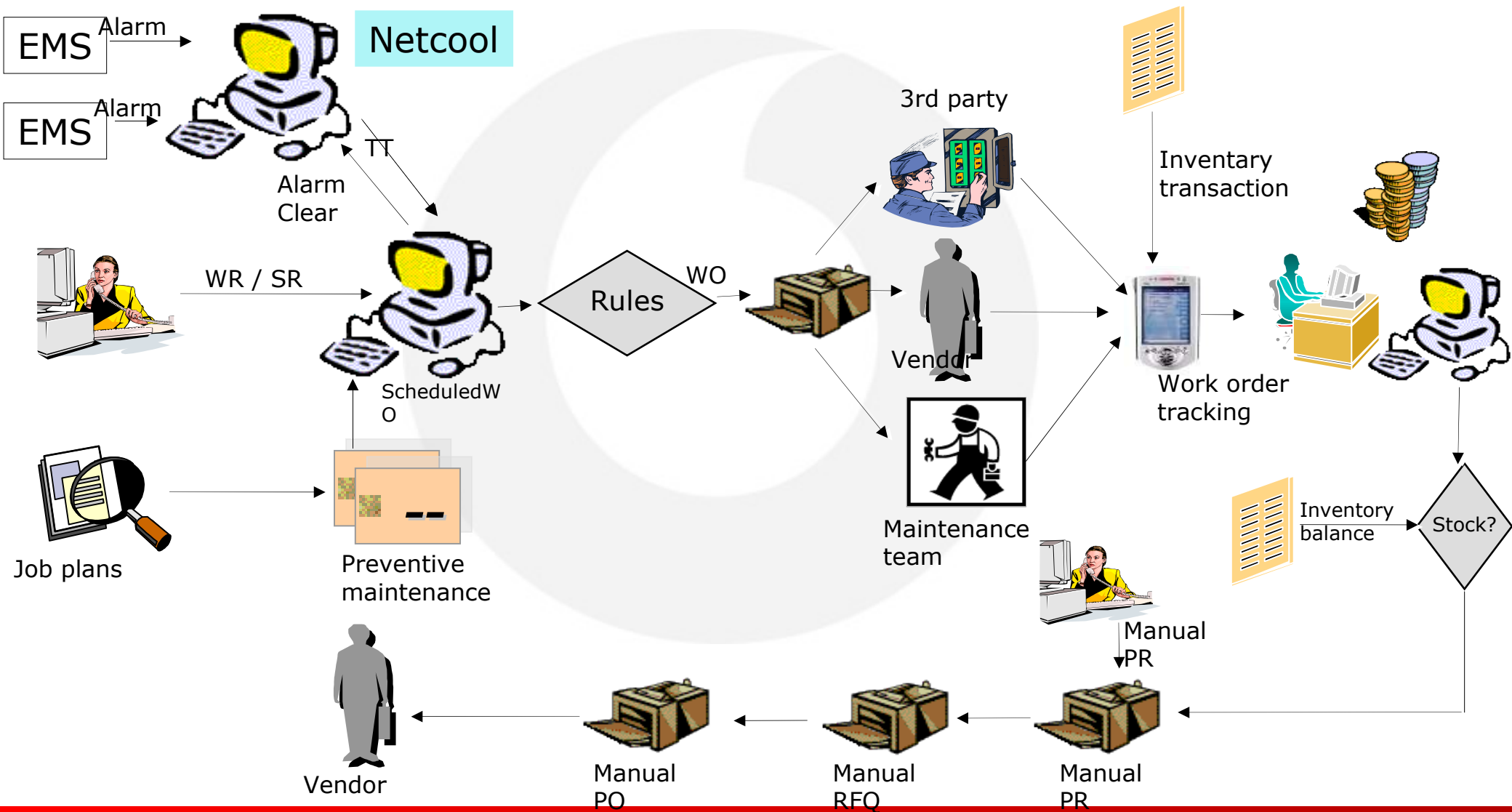
- Automatic Ticket creation
- Archiving of Statistical Reports



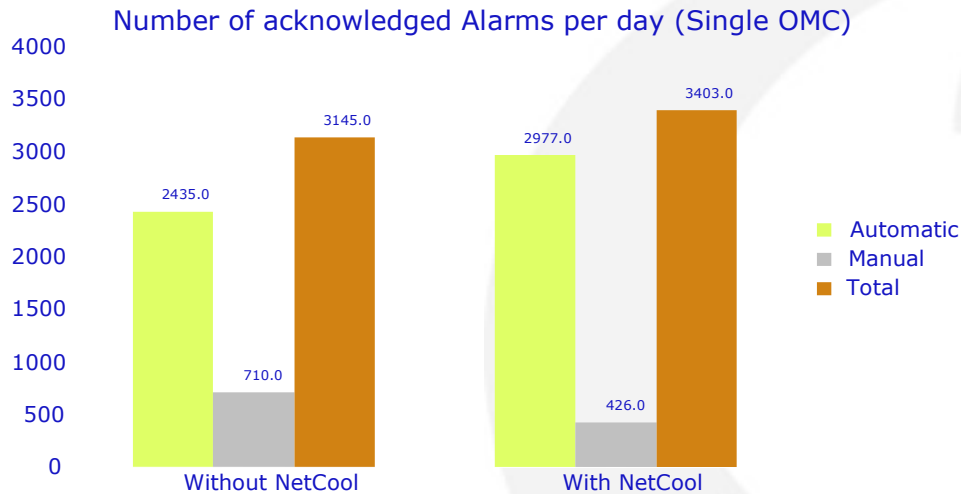
BNL | TT # R04431 | High | Closed | Resolved



TT Architecture for Vodafone Network



Process KPIs



- The number of automatic acknowledged alarms has increased
- The number of manual acknowledged alarms has reduced
- The overall alarm monitoring process has decreased: operators don't need to spend effort on "simple" alarms. This effort is used in managing "complex" events.
- Due to combination of previous points, time saved in managing alarms is **34%** with the same process quality

Conclusion

Increased level of automation

Time saved due to increased number of alarms managed by Netcool via automatic check with external OSS environment

Increased throughput of monitoring process

Time to Acknowledge alarms has been reduced due to the re-use of resources previously used for managing "simple" alarms

Reduced time to dispatch Trouble Tickets

Time to open TTs has been reduced due to availability of additional information (inventory) on alarm data

Centralize / Consolidate monitoring process

Single Alarm Dashboard (instead of 15 OMC-Rs): optimization and consolidation of existing monitoring process

34% Time Saving in Alarm Monitoring process:



Thank you.



Bu sunum 28 Mayıs 2009 tarihinde Swiss Otel'de yapılan Tivoli Pulse 2009 toplantısı için hazırlanmıştır.

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