Business Service Management

Aligning IT with Business priorities by monitoring critical business services & applications

Jenko Gaviglia, Director of International Sales, Tango/04 HQ
company data

- Tango/04 is a software house founded in 1991
- We are specialists in Business and IT monitoring solutions
- Headquarters is in Barcelona with presence in all the world throughout partners network
- We focus on:
  - IT governance and monitoring
  - Compliance in security
  - BSM solutions
company data

- We have local offices in:
  - Spain
  - USA
  - France
  - Italy
  - Argentina
  - Brazil
  - Colombia

- International Distributors Network around the globe

- More than 1,000 customers
We are proud to count them among our customers

<table>
<thead>
<tr>
<th>L’Oreal</th>
<th>Bayer</th>
<th>Socram</th>
</tr>
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<tbody>
<tr>
<td>CC&amp;G</td>
<td>Pfizer</td>
<td>MGF Logistique</td>
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<tr>
<td>SEUR Geopost</td>
<td>Fortis Bank</td>
<td>IOR</td>
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<tr>
<td>Random House Mondadori</td>
<td>Tupperware</td>
<td>UBS</td>
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<td>Pernod-Ricard</td>
<td>Liberty Insurance</td>
<td>Miele</td>
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<td>Sligro</td>
<td>Mondiale Assistance</td>
<td>Auchan</td>
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<td>Dia</td>
<td>Prada</td>
<td>Banco de Galicia</td>
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<tr>
<td>Euronet</td>
<td>Center Parcs</td>
<td>Zurich Financial Service</td>
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<tr>
<td>San Paolo Bank</td>
<td>Banque de Luxembourg</td>
<td>K&amp;H Bank</td>
</tr>
</tbody>
</table>
Customer References – FBI Europe
Customer References – FBI Latin America
Filling the gap between Business & IT operations
Complex and Heterogeneous IT Infrastructures
Where is the complexity?

IT Manager

SPECIALIZATION

Network & Communications Administrator
Platform Administrator
Database Administrator
Application Administrator

Business Process

Problems happen in the grey areas... the interfaces!!!
Business Service Management

Filling in the gap between IT and the Business

[Images and logos]
How do we answer these questions?

We need to know the explicit relationship between business processes and services and the infrastructure IT underlying components.
End-to-End Business Process Monitoring

• Business Service Monitoring
  • Sets of resources and functions that work together to allow the organization to conduct business
  • They can consist of multiple processes and technical components

- Router
- Firewall
- Linux Web Server
- Windows WebApp Server
- ETL Middleware
- iSeries App Host
- Database

Business Service
www.eBank.com Online Banking

Infrastructure Components
LAN Network
End-to-End Business Process Monitoring

- A failure in a single component impacts the availability of a whole business service
  - Failure can also be related to performance issues
• A failure does not necessarily have a significant business impact
  • Business impact is minimal when, for instance, the component is replicated or an alternate route exists
Monitoring can provide relevant information for each level

- As every manager in the picture needs different detail of information, they will have a different enterprise view in the console
The solution architecture: 1-2-3 Approach

Sharing the same architecture for Operations, Security and BSM
Monitoring is a Journey

The new trend in monitoring strategies

1 infrastructure

2 security

3 applications and business services
2 solutions based on the same technology
Business Protection, BSM, Business Continuity, Operations Automation, Enterprise Monitoring, SLM Application Management & High SW Availability

Multiplatform BSM

Business Protection, Real Time Security Auditing (and Reporting), Data auditing and protection

Security and Audit
VISUAL Message Center is a solution with an open and modular architecture which ensures sustainable company growth.
Tango/04 VISUAL Message Center

Agents
Sending Messages

Console
Visualization and alarms

Reports
analysis y measurement
## ThinkServer Configurator

### Syslog

#### Syslog List
- Custom Monitor Extension Pack (SDK)
- Exchange Operations
- Series
- JBoss Operations (Beta)
- Linux
- Linux Operations
- Linux Security
- SQL Server
- SQL Server Operations
- SQL Server Security
  - Data Files (SQL Server 2000 and later)
  - Errors and Warnings
  - Locks Auditing
  - Object Changes
  - Security Auditing
  - SQL Server Audit (Generic)
  - Statements Auditing
  - Stored Procedures Auditing
  - Traces on SQL Server 2000
  - Traces on SQL Server 7
  - Transactions Auditing
  - User Auditing
- Typical Operations (Beta)
- Universal Transaction
- UNIX (R.X., HP-UX, Solaris)
- UNIX Operations
- UNIX Security
- WebSphere Application Server Operations
- Windows
- Windows Operations
- Windows Security
- Avi Network

#### Latest 9 Events

<table>
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<tr>
<th>Timestamp</th>
<th>Type</th>
<th>Severity</th>
<th>Message</th>
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<tr>
<td>21/02/2008</td>
<td>Critical</td>
<td>Failed</td>
<td>Failed password for root from 192.168.0.35 port 2797 ssh2</td>
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</tr>
<tr>
<td>16/04/17</td>
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<td>Failed</td>
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<tr>
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<td>Failed</td>
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<td>16/04/24</td>
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<td>Failed</td>
<td>Failed password for root from 192.168.0.35 port 2797 ssh2</td>
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modeling IT components according to business services

- Model in business terms
- Monitor only critical components
- Be alerted only of relevant events
- Respond faster to problems
- Learn the real impact on the business
- Create business dependency rules
- Control everything from a single dashboard
IT modeling with Tango/04

- Model services and applications
- Determine the critical components
- Consider the redundancies and dependencies
- Monitor availability and performance
From Chaos to Control

Element Monitoring approach
Total: 23,500+ Technical Parameters Monitored

- Which are the affected services?
- What is the root cause of an application problem?
- How good is the end-to-end response time?
- How about SLAs?
Our monitoring approach

Business Services are modeled as a subset of components relevant for that service.
Dashboards are Not Enough

Total: 2,500+ Technical Parameters Monitored, but...

Order Consolidation must take place every night BEFORE 10pm
Business Impact modeling

Custom Rules

If the previous options do not satisfy your needs, custom rules are a very powerful tool allowing you to handle complex situations. Custom rules set element criticalness according to the first rule that matches the current situation. If no rule matches, element criticalness will be set to Harmless.

Rules:

- Set to value if at least [value] % of the children have criticalness equal to [value].
- Set to value if at least [value] % of the children have criticalness equal to [value].
- Set to value if any of the children have criticalness equal or more critical than [value].
Measure User Experience

• To create a policy from a remote branch?
• An operator from the call center search for a customer in the CRM
• A sales rep connects to the extranet
• A customer asks for a quotation via web
Rapidly and accurately identifies real root causes, not side-effects

High-level integration with Remedy and other help desk packages

Weighted impact
Service Oriented Monitoring
Easy modeling of the IT environment

1. Business Views tree allows to model any IT infrastructure

2. Enterprise Views: graphic and clear view created from the Business Views
How Can We Align Both Worlds?

Technical Incident

Impacted Services
How Can We Align Both Worlds?

Business Service

Probable Root Cause
VMC can provide relevant information for each level.
Easy modelling of the IT Environment

- **Master Database**
- **Internet Accessibility**
- **Web insurance applications**
- **Mediators (3000)**
Credit Card Processing

POS Service

DataFast - Transacc. del día acumuladas (agrupado por hora)

- T. Aprobadas - DINERS
- T. Aprobadas VISA
- T. Aprobadas MASTER

Porcentaje de Aprobadas

- MAX of Diners
- MAX of VISA
- MAX of Master

T. Rechazadas DINERS
- T. Rechazadas VISA
- T. Rechazadas MASTER

Porcentaje de Rechazadas

- MAX of VISA
- MAX of Diners
- MAX of Master

Routers
SLA on Business Services & Applications
Enforce Service Level Agreements

- Database
  - Database Availability Report
  - Database Administrator

- iSeries App Host
  - iSeries Availability Report
  - Platform Administrator

- Router
  - Network Availability Report
  - Network & Communications Administrator

- Backup Router

- Windows WebApp Server
  - Windows Availability Report
  - Platform Administrator

- Web Server
  - Web Server Availability Report
  - Platform Administrator
Enforce Service Level Agreements

Database
iSeries App Host
Router
Backup Router
Windows WebApp Server
Web Server

www.acme.com Online Store

Business Process Availability Report

CIO
# Enforce Service Level Agreements

## Reporting with Tango/04

- Demonstrate the quality of IT service
- Prove user experience
- Prove compliance to SLAs
- Improve performance continuously
- Take better and faster decisions

### Availability

- **93.21%**
  - (SLA 90.00%)

### Failures

- **16**
  - (SLA 15 Failures)

### Total Unavailability Time

- **1d 15h 24m 34s**

### Longest Failure Time

- **5h 14m 12s**

### MTBF

- **Mean Time Between Failures**
  - **1d 15h 24m 34s**

### MTTR

- **Mean Time To Repair**
  - **5h 14m 12s**

### Most Problematic Components

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Component</th>
<th>Affection Time</th>
<th># Failures</th>
<th>MTTR</th>
<th>MTBF</th>
<th>% Affec.</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Web Customer Search Transactions</td>
<td>1 h 15 m 24 s</td>
<td>4</td>
<td>1 h 15 m 24 s</td>
<td>1 h 15 m 24 s</td>
<td>24 %</td>
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<tr>
<td>2</td>
<td>Web Login Response Time</td>
<td>1 h 5 m 44 s</td>
<td>5</td>
<td>1 h 5 m 44 s</td>
<td>1 h 5 m 44 s</td>
<td>35 %</td>
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<tr>
<td>3</td>
<td>Web Server Performance</td>
<td>48 m 24 s</td>
<td>1</td>
<td>48 m 24 s</td>
<td>48 m 24 s</td>
<td>11 %</td>
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<td>4</td>
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</table>
Tango/04 Solutions for Security
Three in One

1. Infrastructure
2. Security
3. BSM/SLM Applications Management
2 types of approach

Full Security Monitoring Projects
- Implementation of Security controls
- Agents for different platforms, applications and databases

Console of security consoles projects
- Implementation of one central console above other security monitoring solutions
- Integration of messages and events into the central console for centralized real-time management and reporting
A Security Violation Example

- **A real life example:**
  - A file named “Payroll” which only could be accessed from the user group “Accounting”.
  - The security agent could monitor this file and send an alarm in case a user who doesn’t belong to the Accounting group is trying to access this file.
  - The security officer would instantly receive an email or a SMS and be notified in order to take the appropriate action. Or an automatic action could be generated.
Reports prove compliance to auditors
Real Time Security Monitoring

SOX Audit Dashboard

- USERS
  - Authentication
  - Authorization lists
  - Profiles/Changes
  - QSECOFR
  - User inactivity

- OBJECTS
  - Record-Level Data Changes
  - SQL Activity
  - Denied Access
  - Change Owner

- NETWORK
  - FTP
  - ODBC
  - Client Access
  - Firewall

- iSeries SERVER
  - Sensitive Commands
  - Object Access
  - System Values
  - Batch Processes
  - Network Attributes
  - Backup

- Windows SERVER
  - Security Policy Changes
  - System Events
  - Audit
  - Start Domain Session
  - Start Local Session
  - Backup
Conclusions
Tango/04 Value Proposition

End-user / Enterprise Value

Time (BSM Maturity)

Tango/04 BSM Methodology

Infrastructure Monitoring

Business Service Monitoring
The Advantages of being a Tango/04 Partner

- **Great solution, easy to use, easy to deploy**
  - Infrastructure, BSM, Security

- **Strong in iSeries, strong in multiplatform**
  - iSeries solution have limited or no multiplatform support
  - Multiplatform solutions have poor iSeries support

- **Technical Solution but with a business focus**
  - More value for the company as compared to a techie tool
  - Easier to justify

- **Excellent Business Partner in Belgium**
  - SkillTeam is Tango/04 Business Partners for more than 6 years
Thank you very much for your attention

Questions & Answers