

DevOps: la perspectiva de operaciones

Julio Córdoba Retana

Ingeniero en Computación, Master en Ingeniería de Software, MBA

Certificado ITIL, COBIT, Scrum, DevOps, ISO

E-mail: jucore@gmail.com

Teléfono: +506 8708-4050

DevOps: la perspectiva de operaciones

Experiencias, ideas y cultura

Comunicación y colaboración entre desarrollo y operaciones

Mejorar productos y servicios

Agregar valor

Flujos rápidos y optimizados

DASA Framework

DevOps Agile Skills Association (DASA)

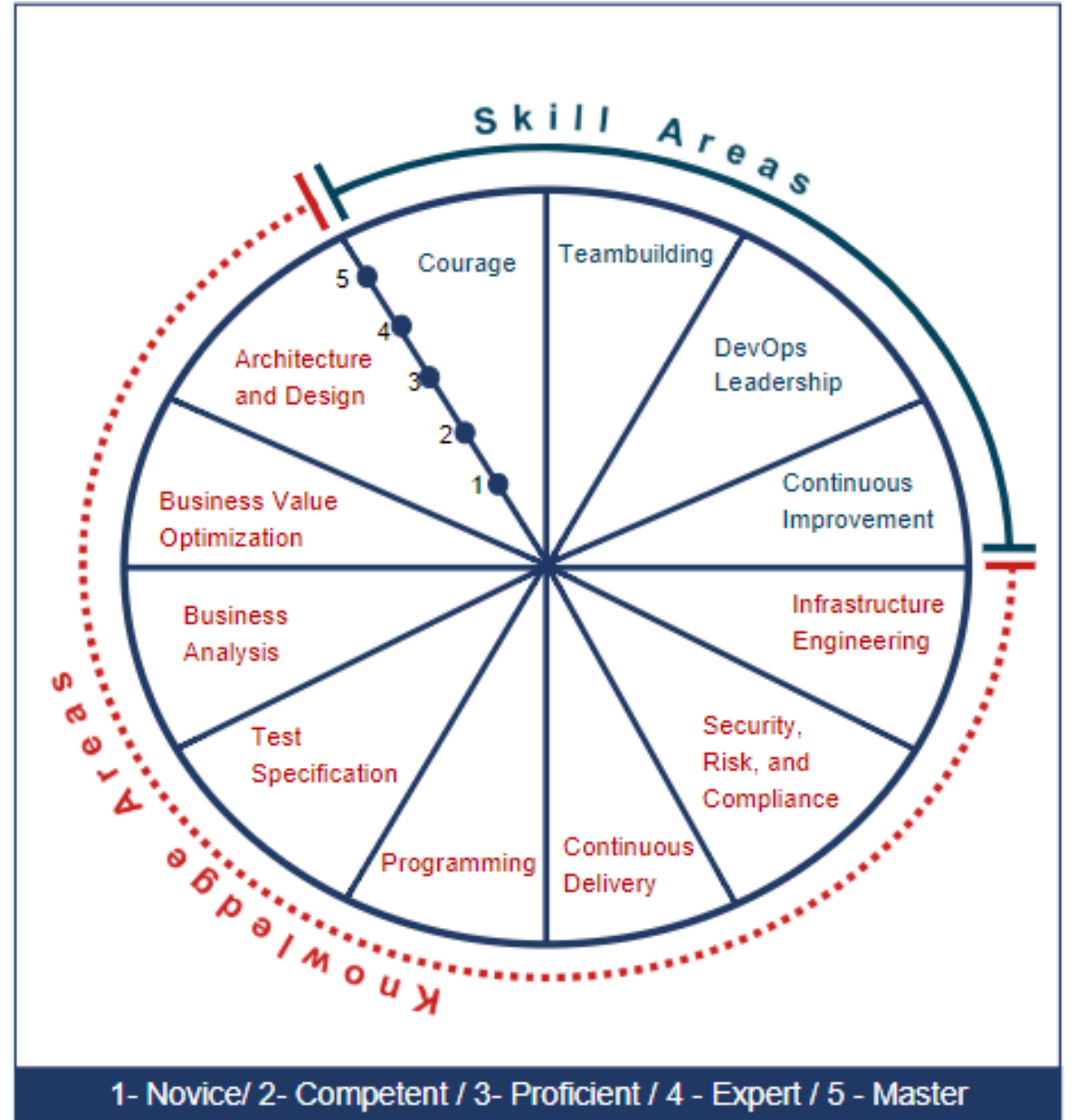
Open, global community

DevOps and Agile skills development.

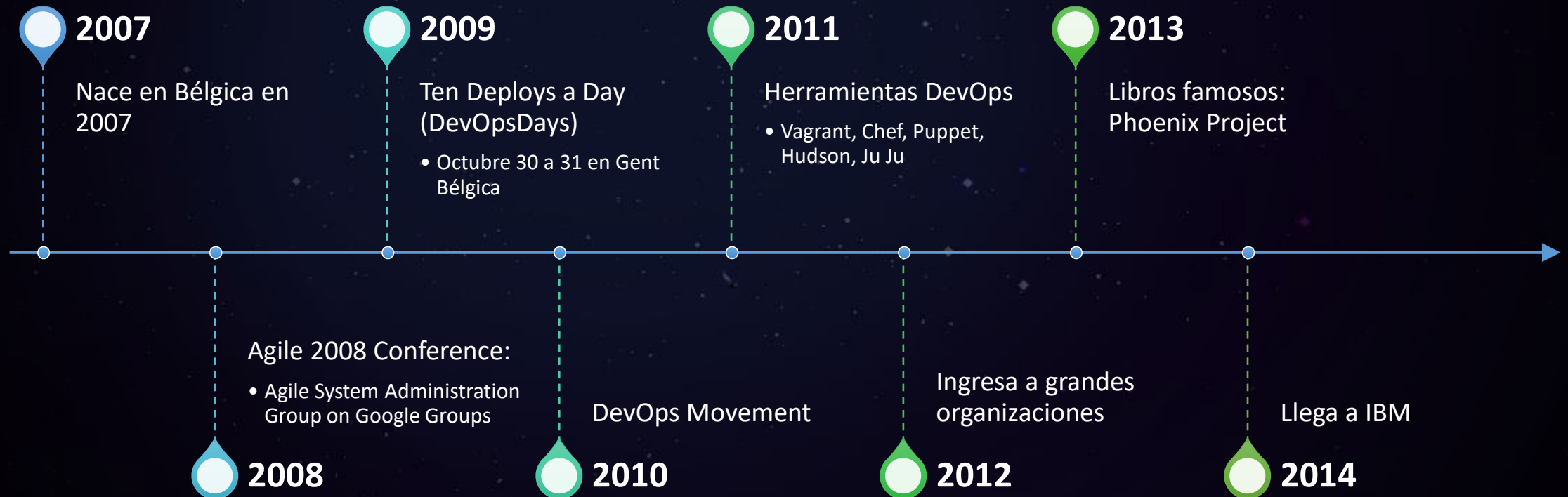
role-based competencies

4 Skills Areas

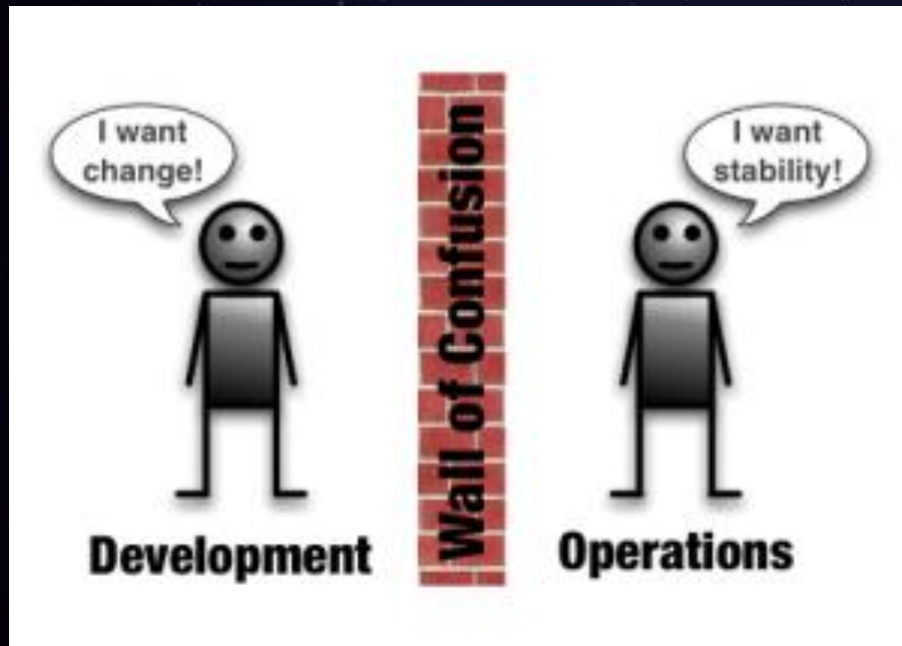
8 Knowledge areas



Un poco de historia...



Wall of Confusion



Algunos números

High-performing teams deploy more frequently and have much faster lead times.



200x more frequent deployments



2,555x shorter lead times

They make changes with fewer failures, and recover faster from failures.



3x lower change failure rate



24x faster recovery from failures

Beneficios DevOps

Mejorar la velocidad de Mercado

Integración y entrega continua

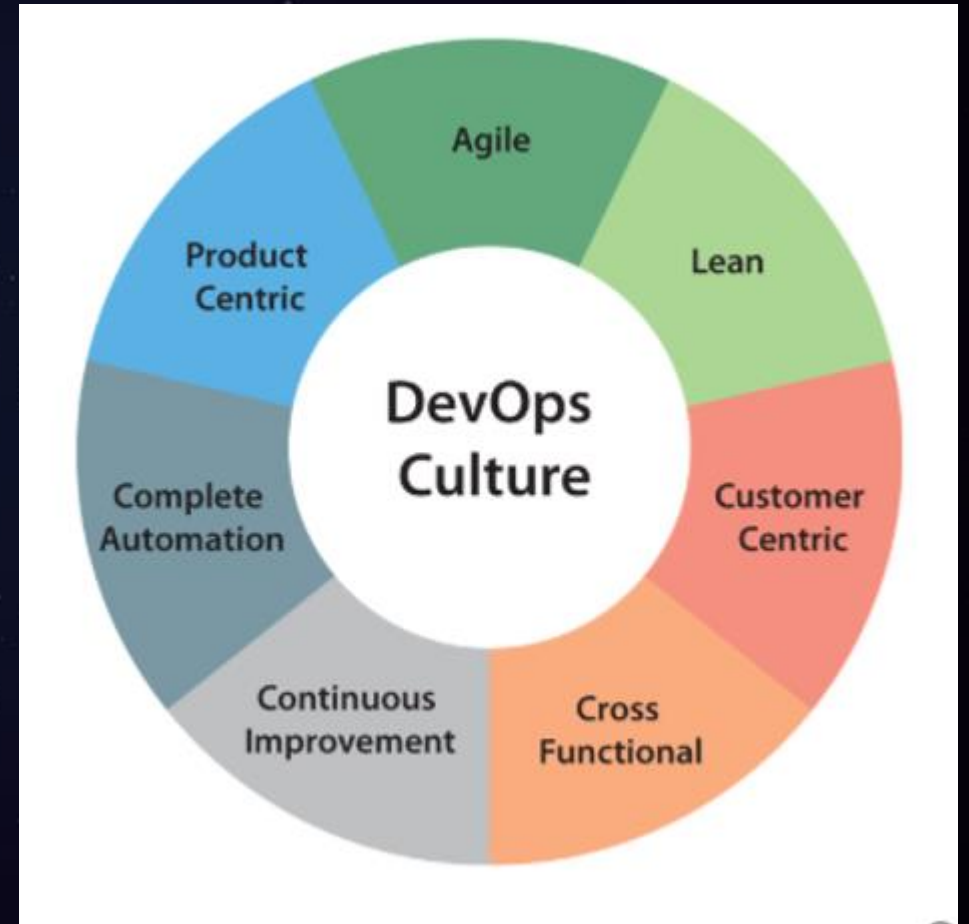
Alta calidad, pocos fallos y alta estabilidad

Innovación y creatividad

Incremento de la satisfacción de empleados

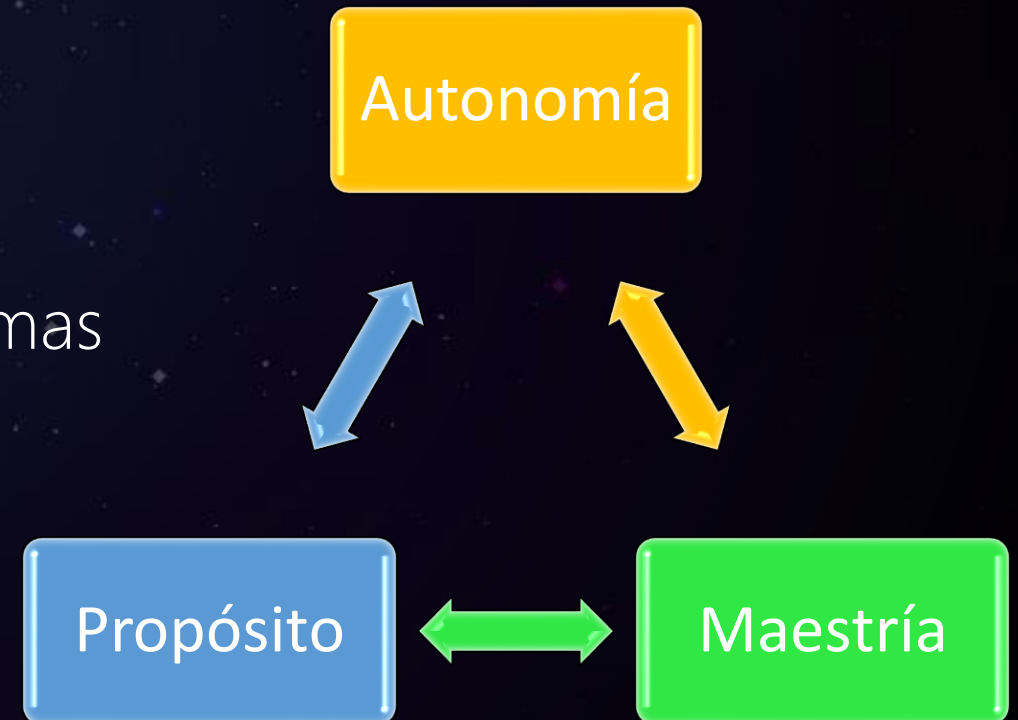
Disminución de silos y eliminación de desperdicios

Reducción de costos y recursos

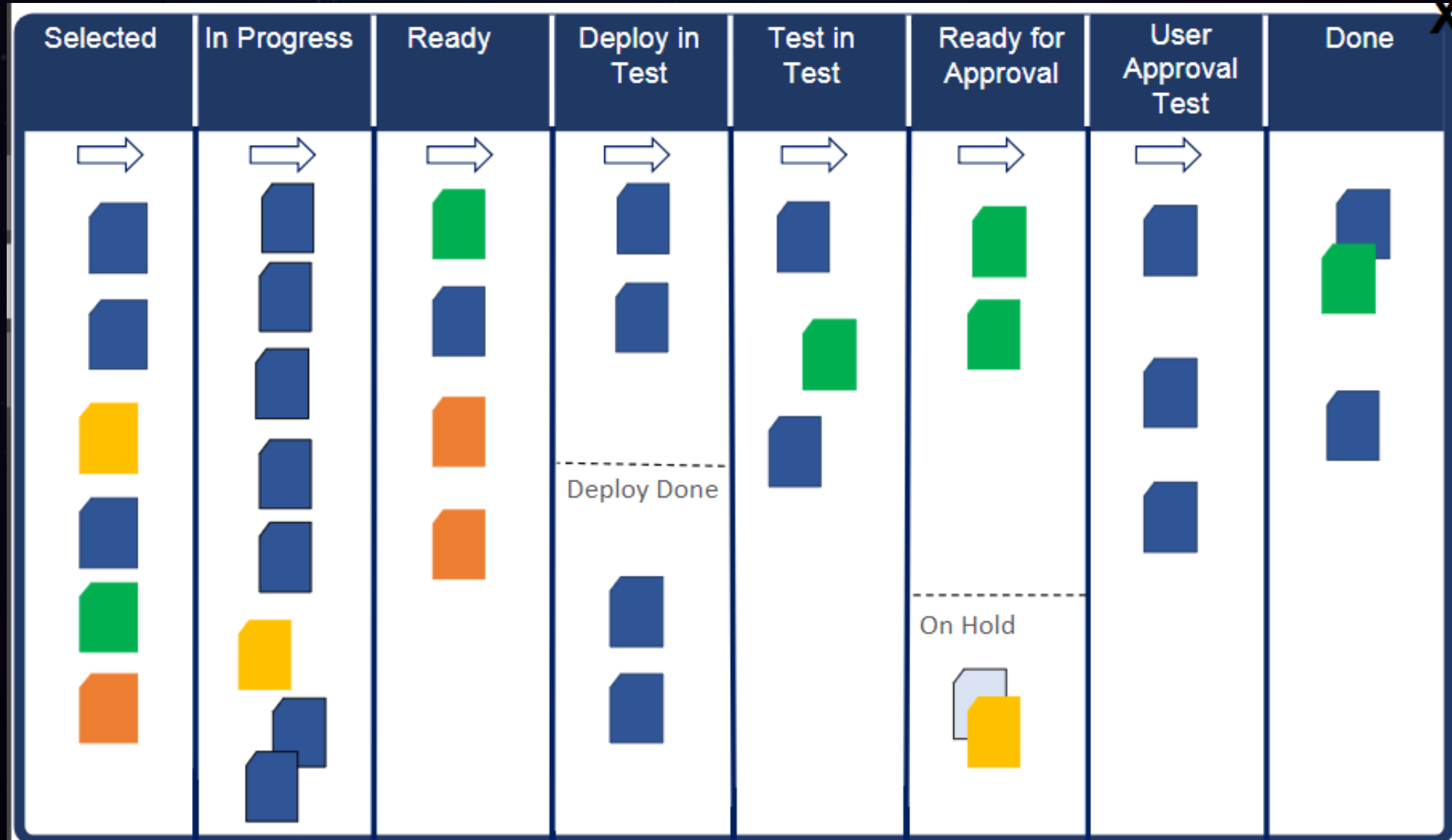


Competencias DevOps

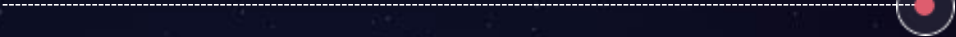
- Flujos de Trabajo DevOps
 - ✓ Colaboración y Construcción de Equipos
 - ✓ Liderazgo y Retroalimentación
- Equipos DevOps
 - ✓ Mejora Continua y Solución de Problemas
 - ✓ Valor y Experimentación



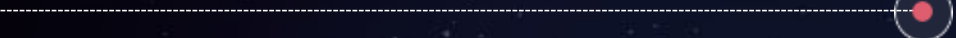
Visual Management (Kanban)



FEEDBACK

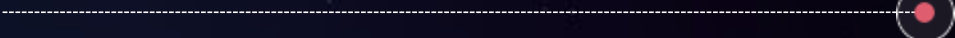


Dar



1. Describir observaciones concretas
2. Explicar lo que significa para usted
3. Esperar y escuchar las preguntas aclaratorias.
4. Dar sugerencias concretas

Recibir

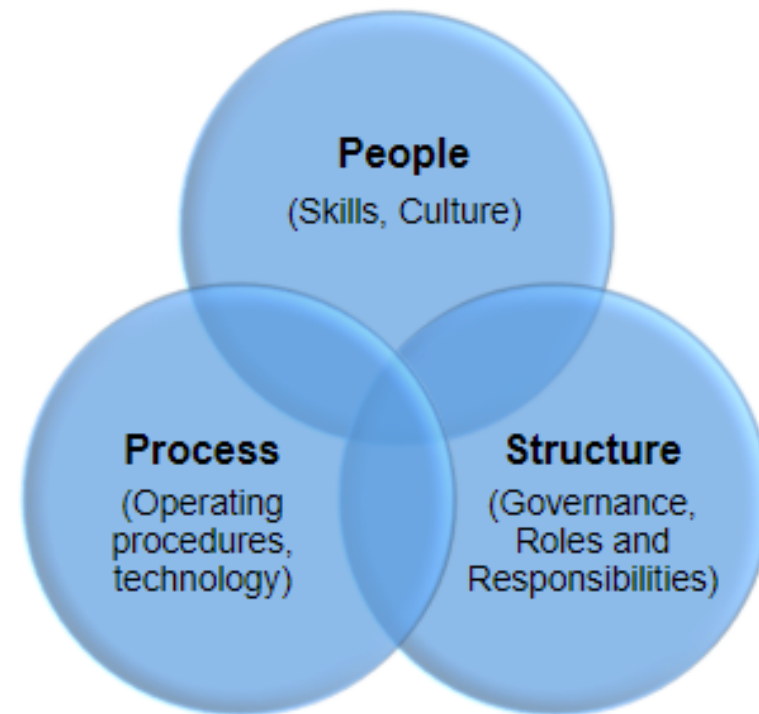


1. Escuchar sin interrumpir
2. Evitar discusiones o excusas
3. Verificar si hay entendimiento claro
4. Reconocer la posición de la otra persona
5. Agradecer
6. Determinar si el feedback aplica o no.

Organización

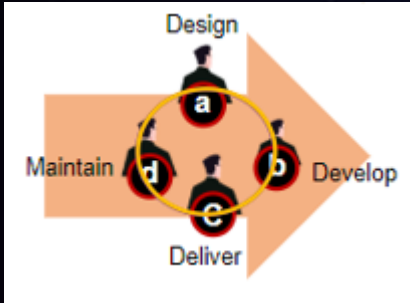


Organizational Model

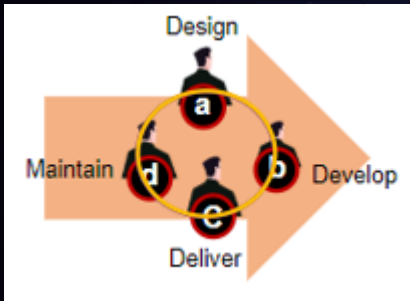


Operational Model

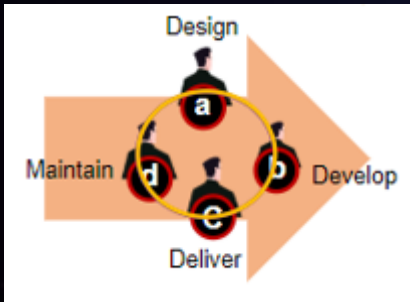
Netflix / Amazon



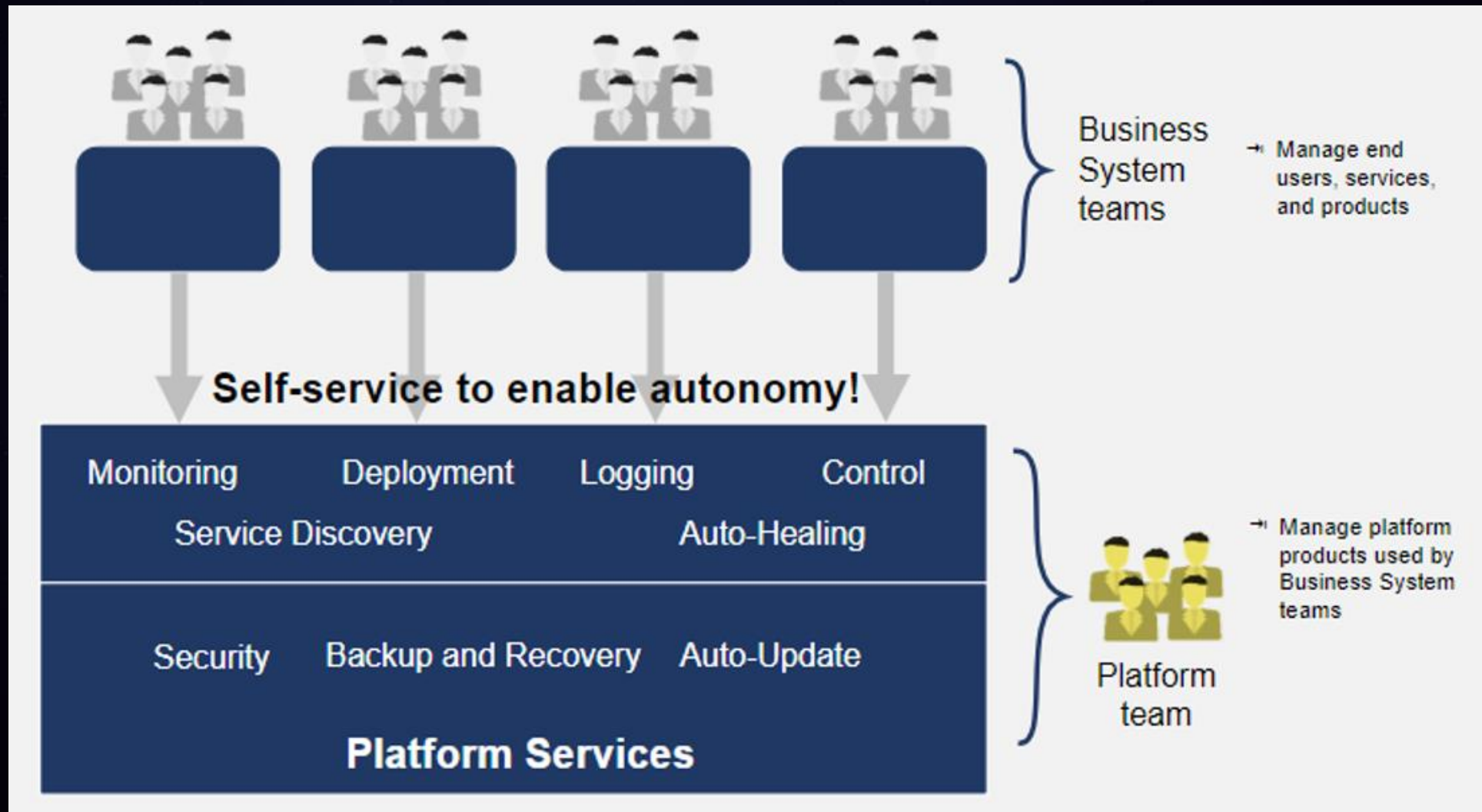
Organización Basada en Actividades:
Optimiza uso de recursos



Organización Basada en Producto:
Optimiza la velocidad



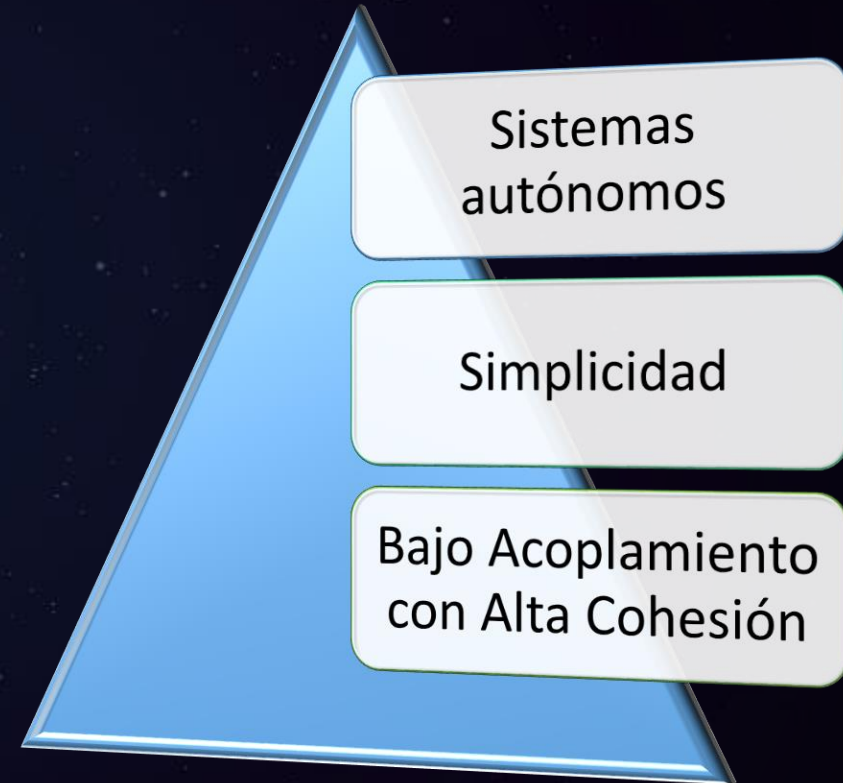
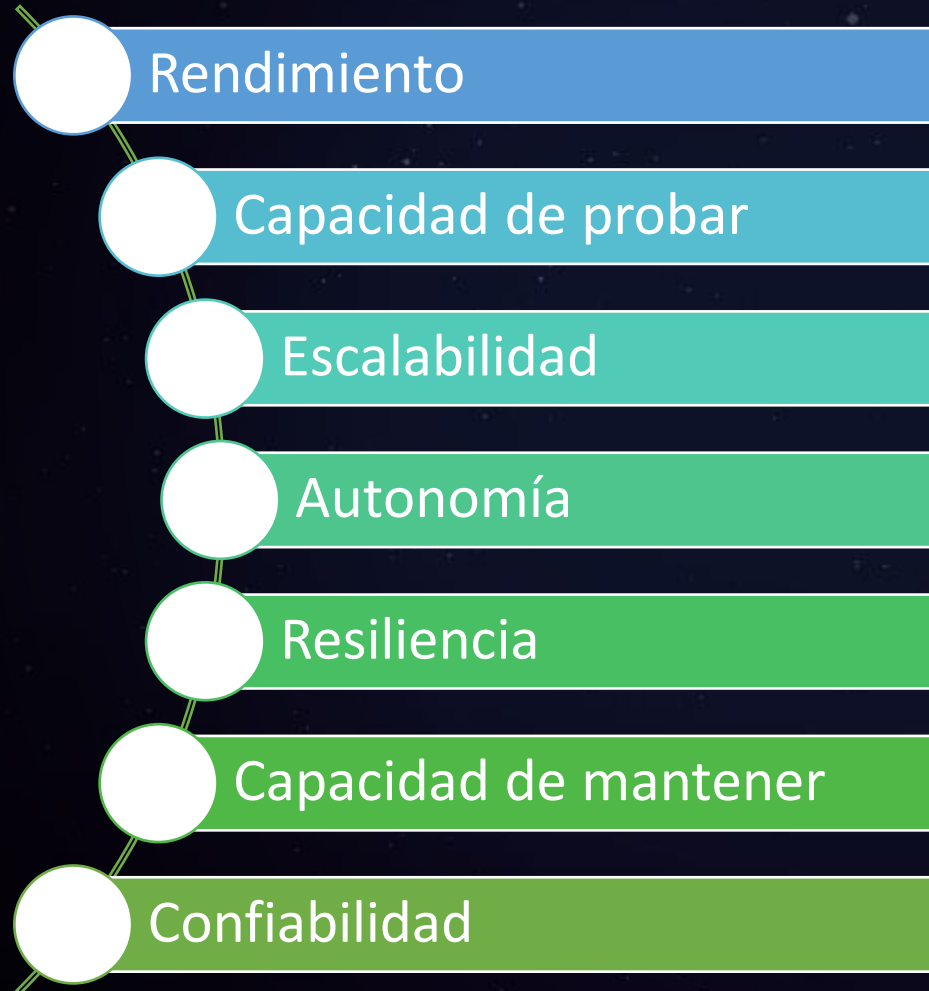
Enfoque Práctico



Ejemplo Spotify



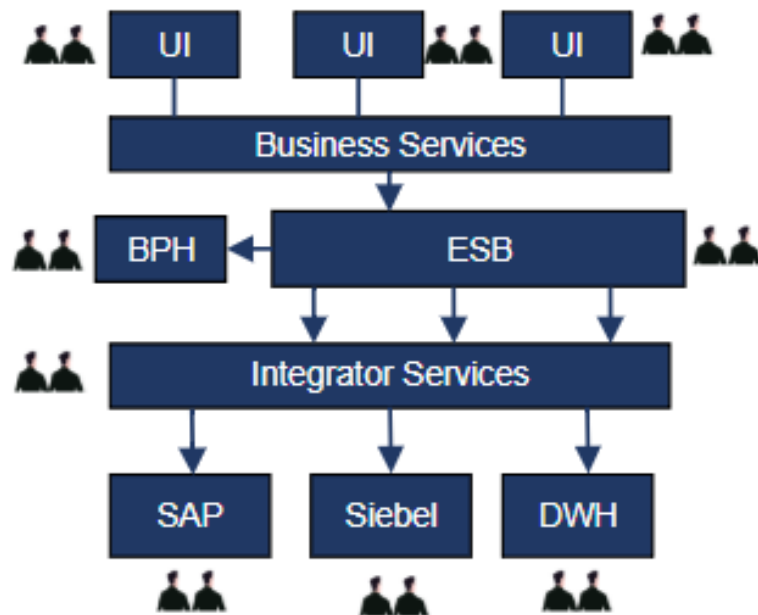
Arquitectura DevOps



Arquitectura Microservicios

From ...

Complex Architecture

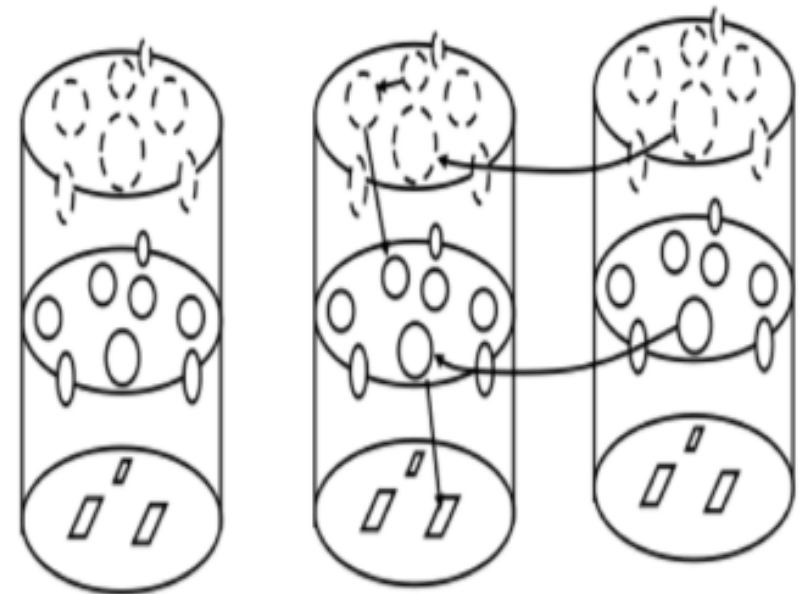


Slow, resource hungry, expensive



To...

Microservice Architecture



Faster, better, cheaper

ITIL / DevOps



Define	Diseño	Transición	Operaciones	Calidad
• Portafolio de Servicios • Gestión Financiera • Gestión Demanda • Gestión Estrategia de TI	• Coordinación • Gestión Catálogo • Gestión de Niveles de Servicio • Gestión Proveedores • Gestión Capacidad • Gestión Disponibilidad • Gestión Continuidad • Gestión Seguridad	• Gestión Cambios • Gestión Configuración • Gestión Conocimiento • Release & Deploy • Pruebas y Validación • Soporte Transición	• Gestión Solicitudes • Gestión Eventos • Gestión Incidentes • Gestión Problemas • Gestión Accesos	• 7 pasos mejora • Medición Servicio • Reportes Servicio

ITIL / DevOps



Gente organizada diferente

Equipos de productos trabajan autónomos

Gente atenta a la necesidad ed cambiar

Procesos automatizados

Diseño, transición, soporte y calidad están incluidos en el mismo equipo.

La estrategia se define todos los equipos juntos

Los equipos son responsables de principio a fin: diseño, implementación y ejecución.

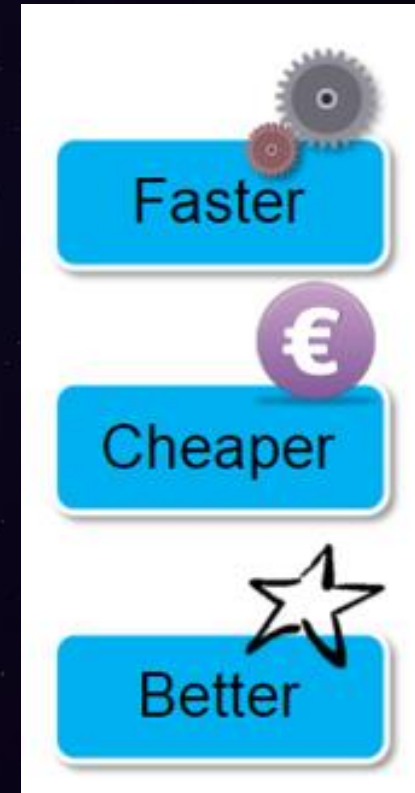
Automatización: todo como código



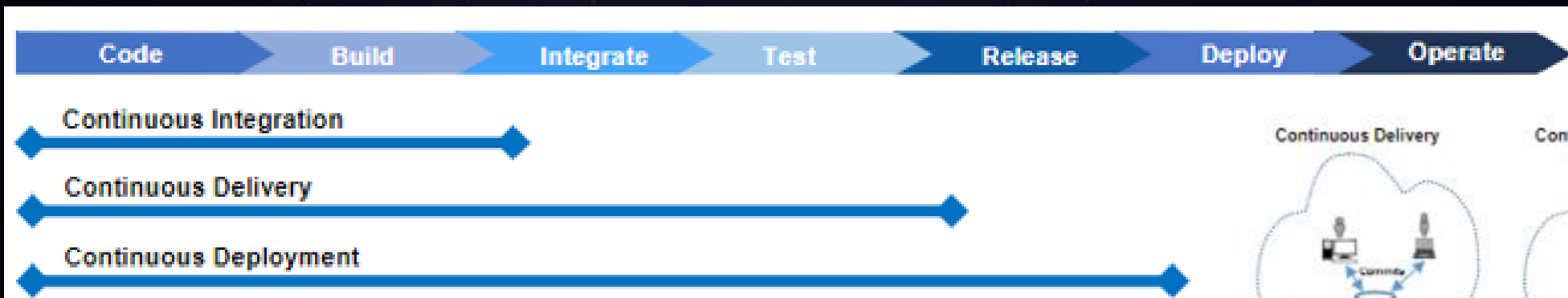
Entrega Continua



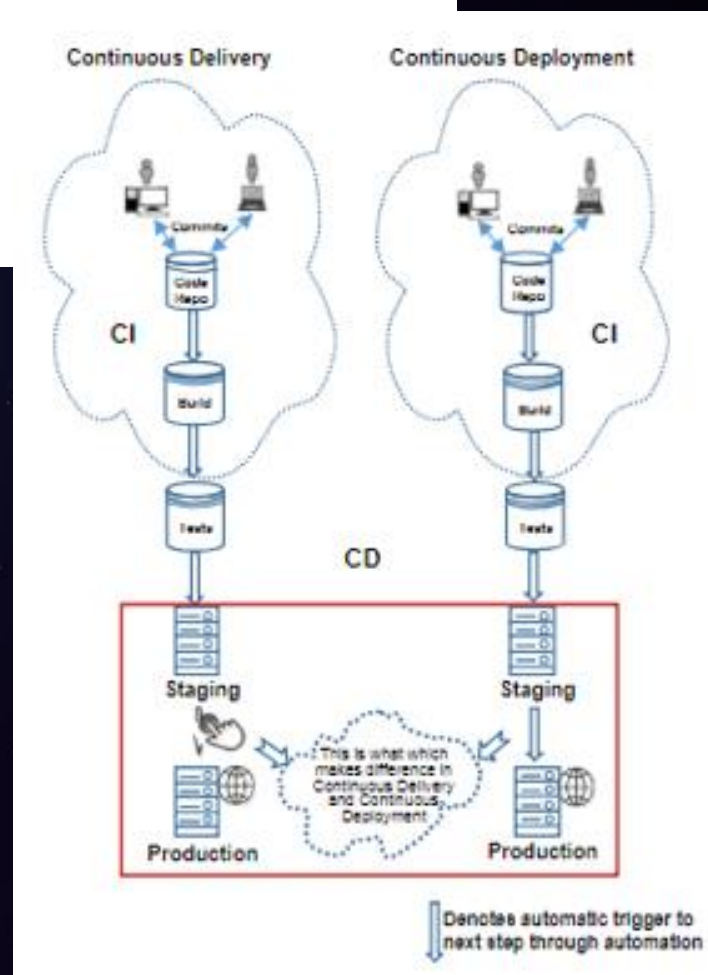
1. Calendario de Releases en manos del negocio y no de TI.
2. Software siempre listo para estar en producción
3. Release a la mano de un botón
4. Segundos o minutos



CI / CD

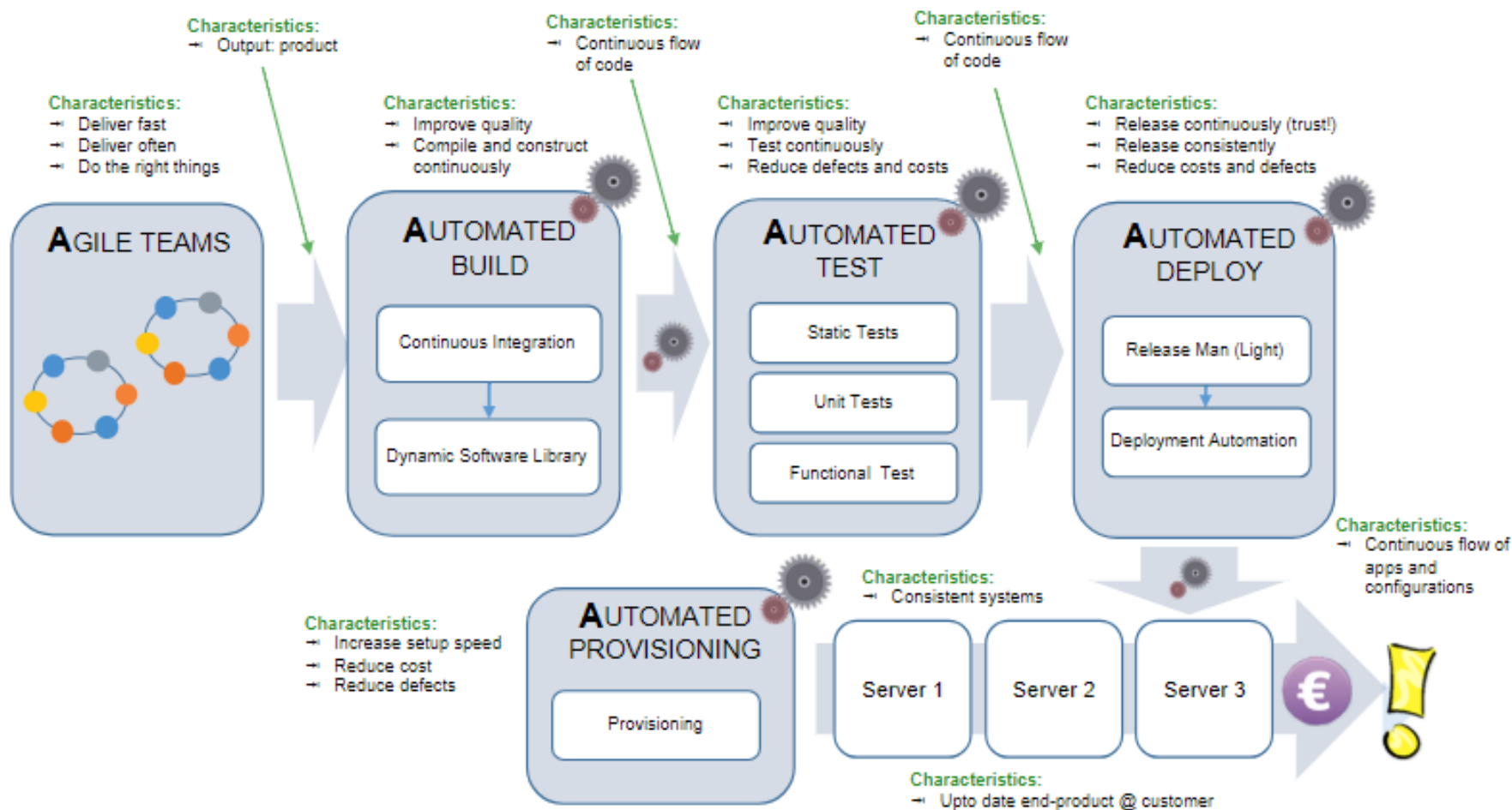


1. "Build" automático
2. Pruebas automáticas
3. "Deploy" automático
4. Aprovisionamiento automático

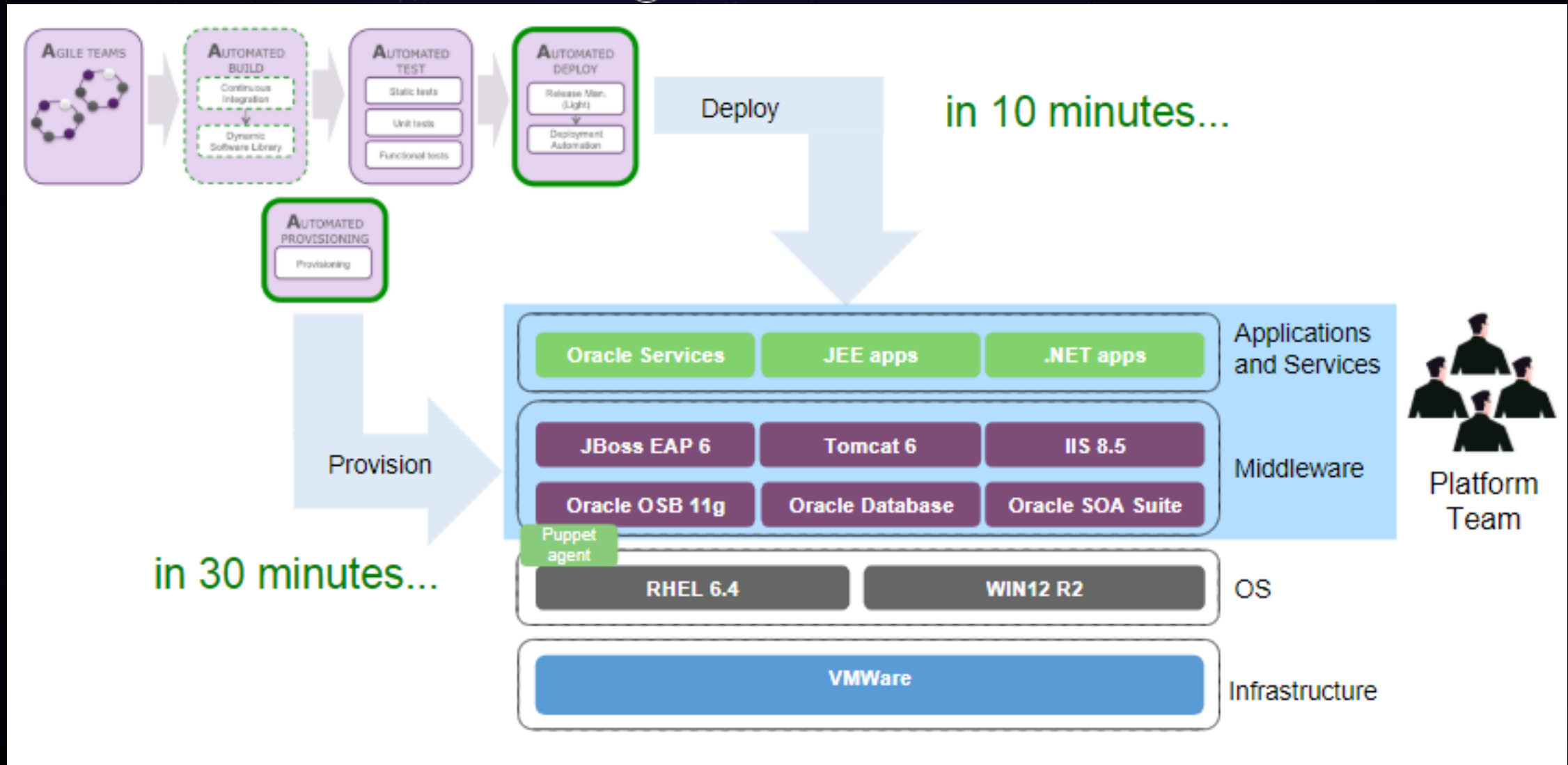


Procesos automatizados

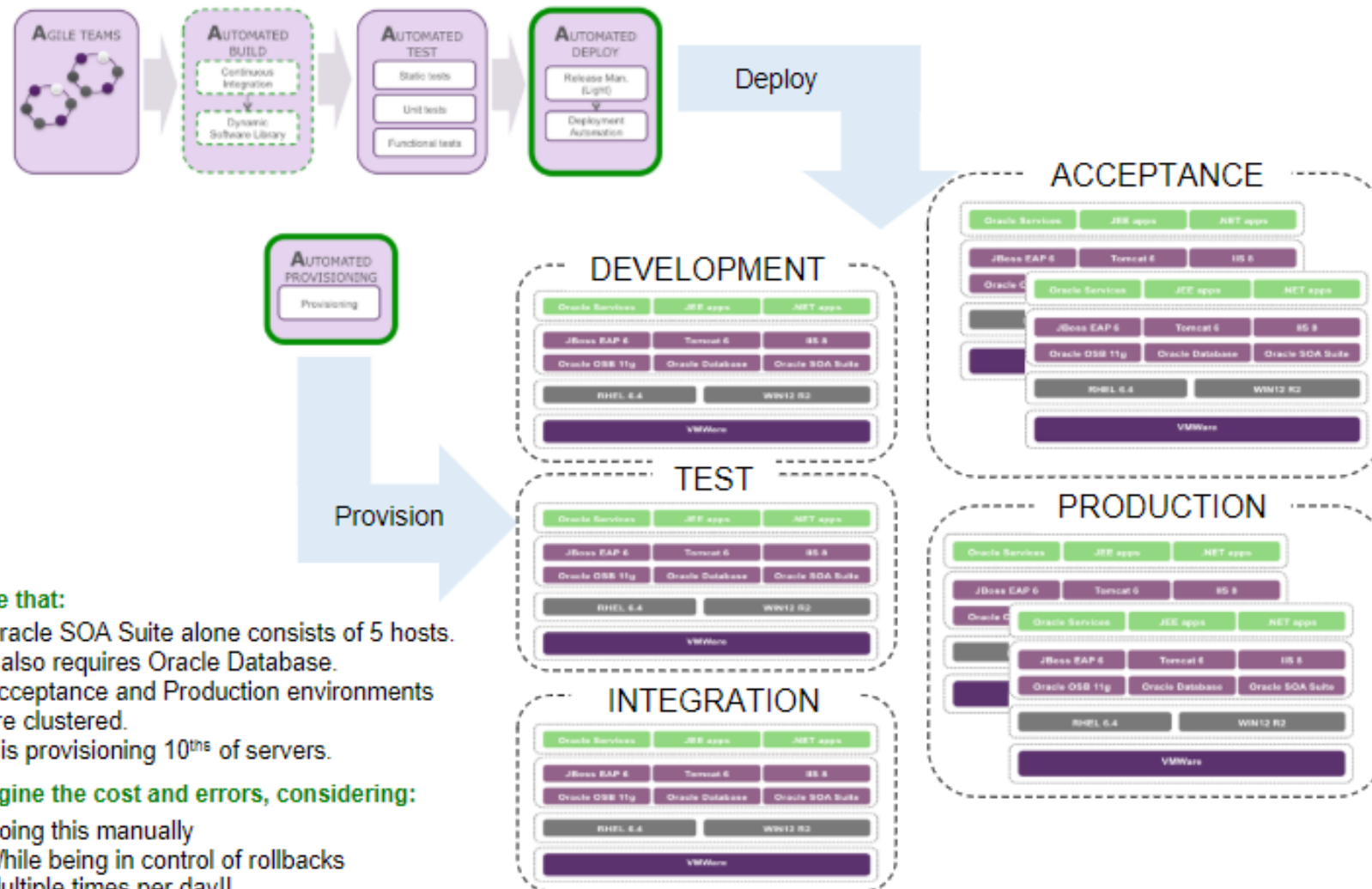
Optimized: A Process of Minutes...



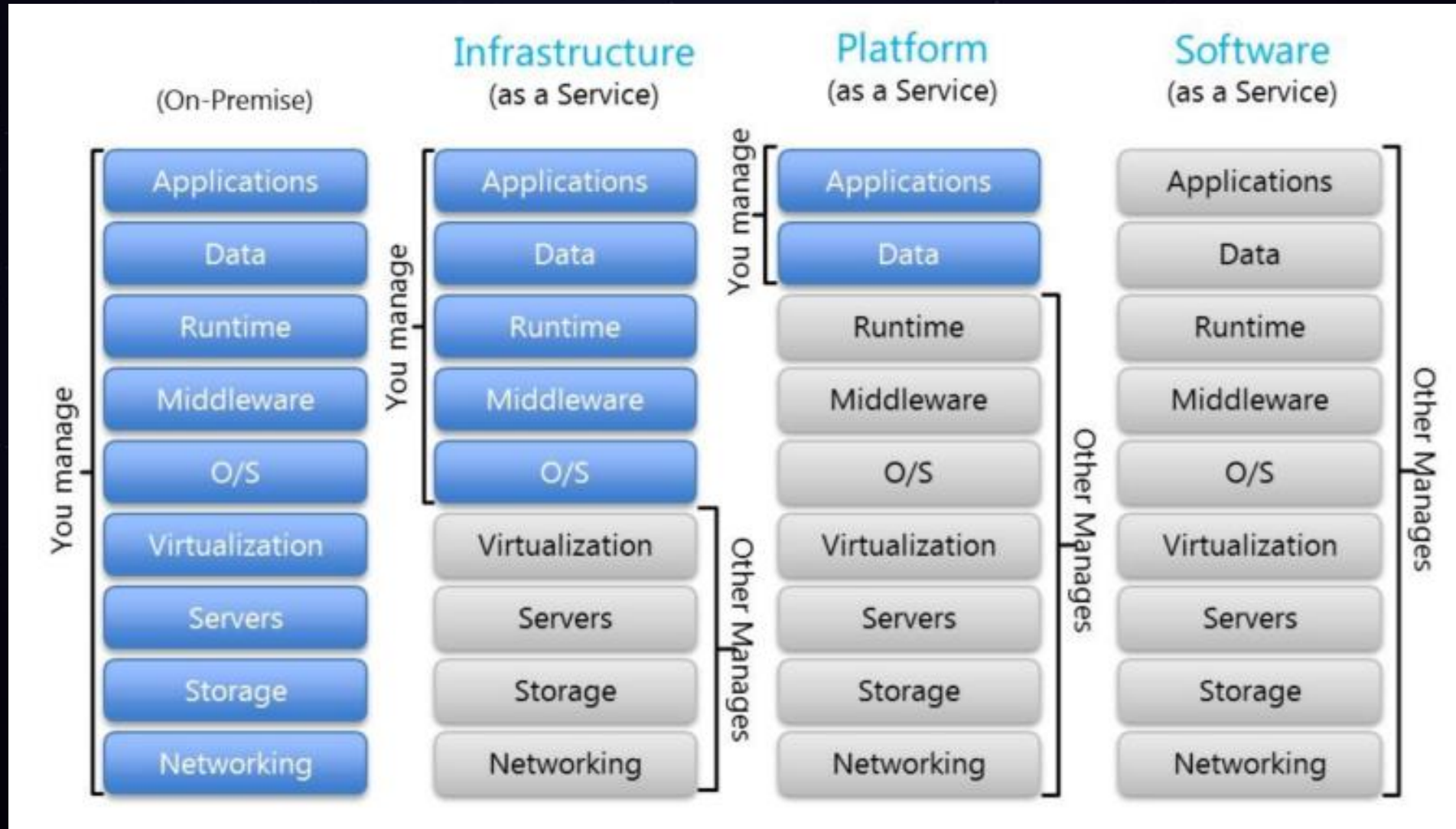
Aprovisionamiento



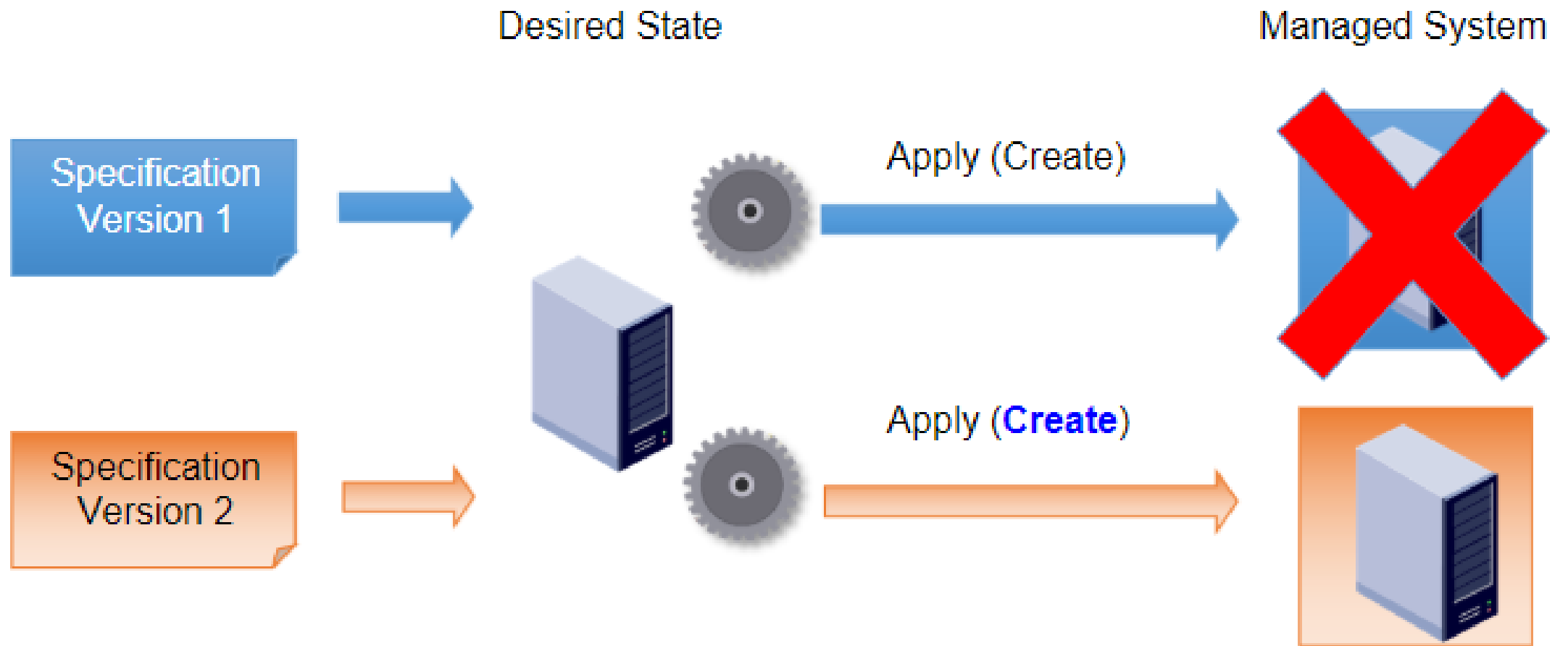
Aprovisionamiento



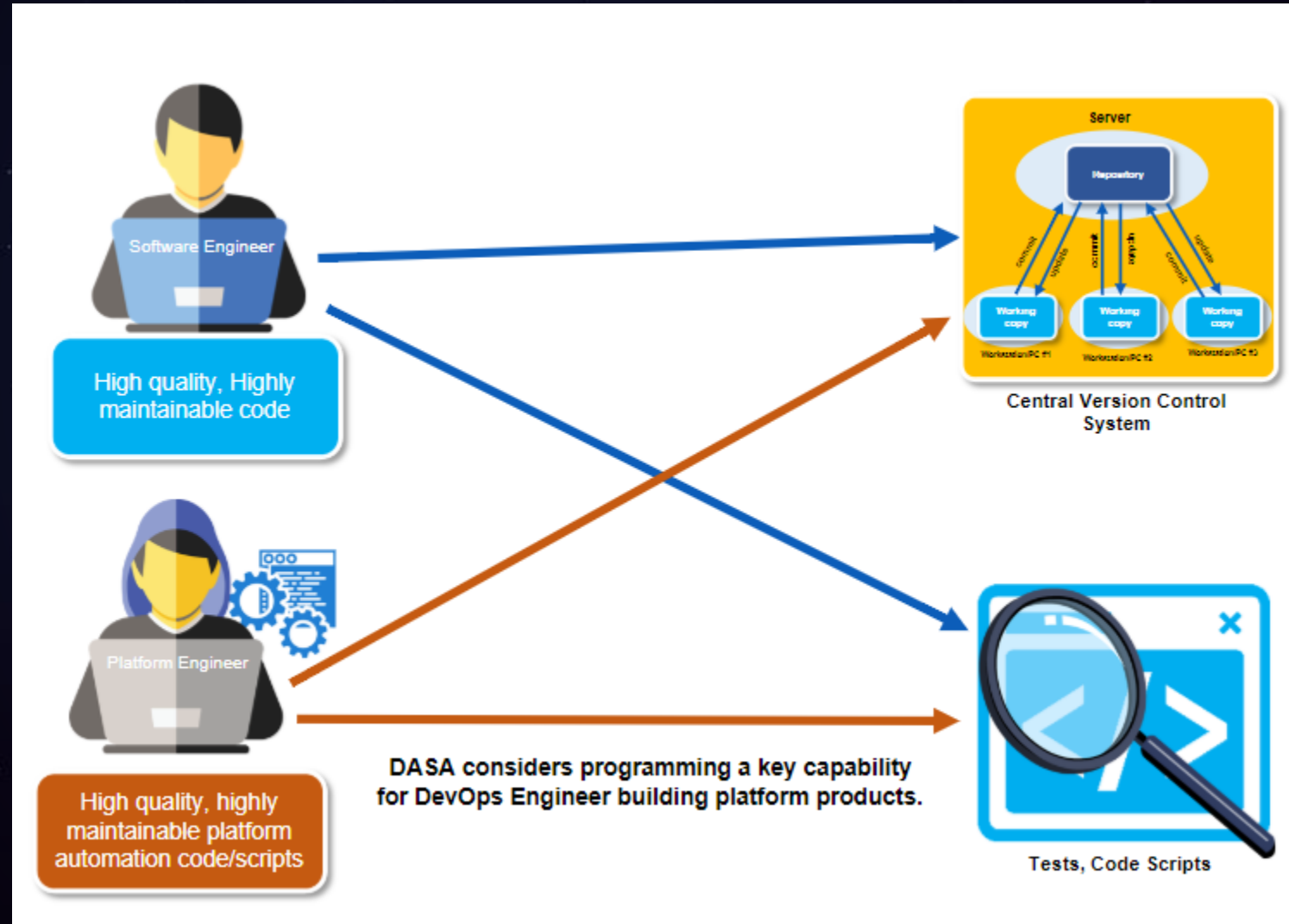
Aprovisionamiento en Nube



Aprovisionamiento automático



Prácticas Ingenieriles



Self-Service (BST)

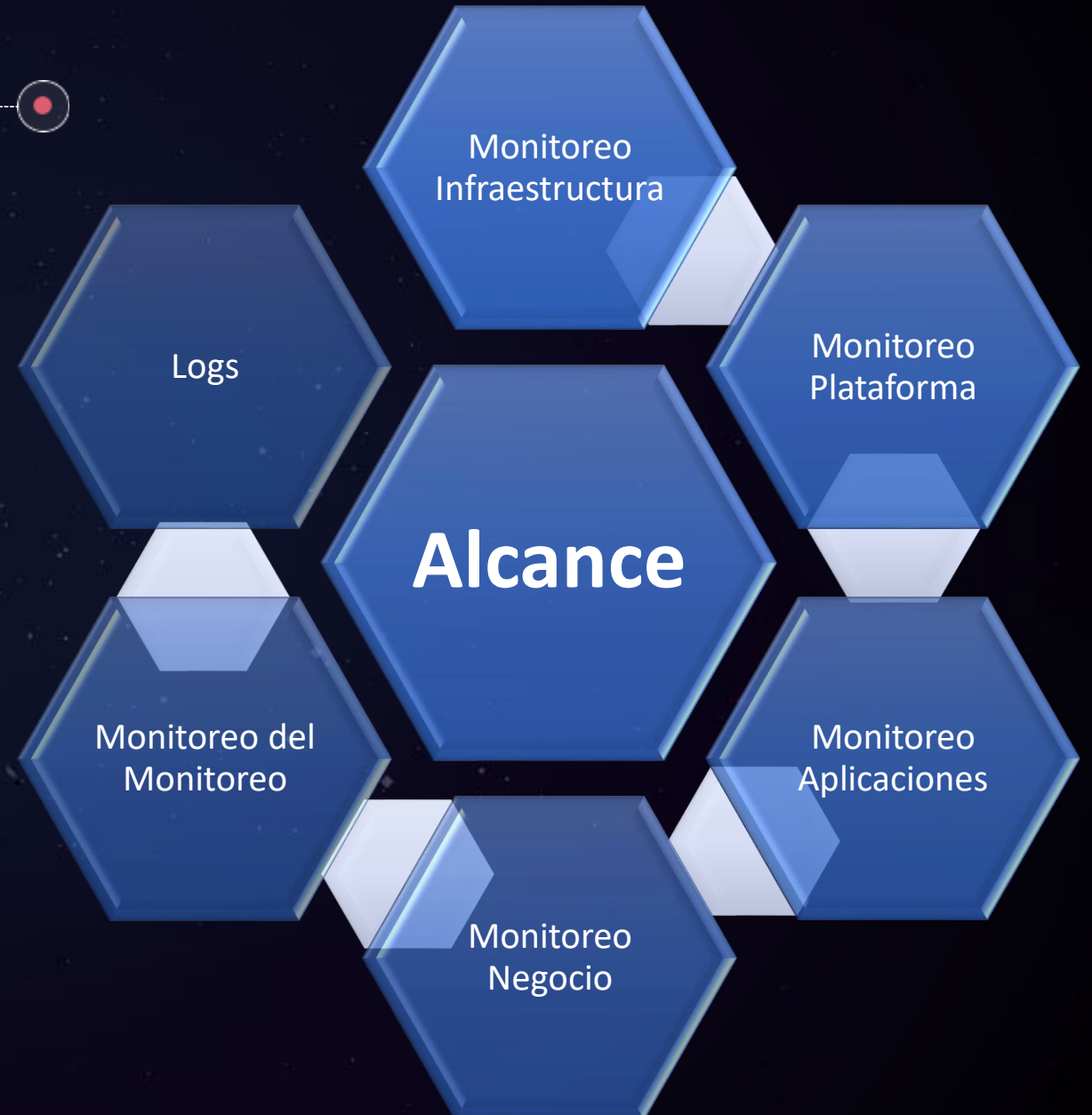
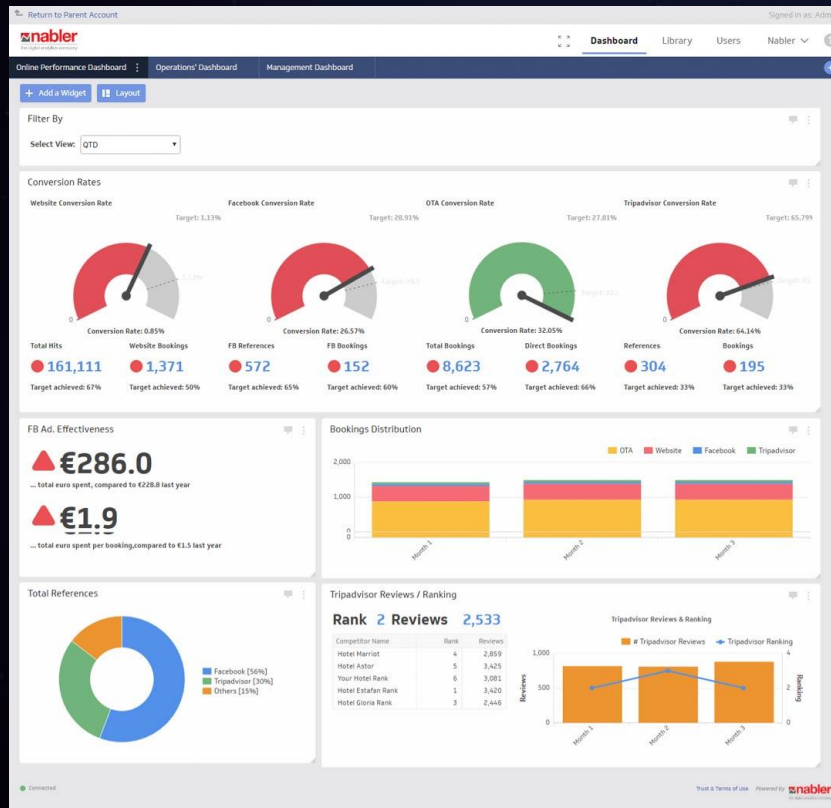


Capabilities for Running Applications and Tools	Capabilities for Delivering Changes
→ Application management self-services, such as backup restore, server restart, and changing log levels → Logging self-services (aggregated) → Monitoring self-services (aggregated) → Billing services	→ Software source configuration/version management self-services → Test automation and reporting self-services → Continuous Integration and reporting self-services → Application deployment self-services → Artifact sharing, validation (among other security), and publication self-services → Test data syndication (or replication) self-services (ensure volatile, anonymized production data is available for certain types of tests) → Release orchestration self-services

CALMS



Monitoreo



Mediciones: dashboards

Measuring Leading Indicators for Software Development Automation

	Continuous Integration	Automated Deployment	Test Automation	Automated Provisioning	Architecture	Agile Continuous Delivery
Level 5 Expert	Automated feature-driven delivery	Deployment automated for advanced "feature go live" scenarios	Teams have adopted business-driven, feature-based advanced test capabilities	PaaS is innovation accelerator	Teams are free to accelerate and innovate without constraints	Continuous optimization
Level 4 Advanced						
Level 3 Average						
Level 2 Basic						
Level 1 Beginner						
Level 0 Not started	Limited central Continuous Integration capabilities	No deployment automation	No test automation	No provisioning, (partially) manual process	Technical issues prevent increasing release frequency	Continuous Delivery principles are not applied

Example Leading Indicators for Automation

Mediciones: dashboards

Measuring Leading Indicators for Data Center Automation

	Security and Compliance	Operational Management	Resiliency	Observability	Provisioning	Data Center Delivery	Product Team Autonomy
Level 5 Expert	Full insight into and control of security and compliance risks	Fully automated insight into capacity, cost, business value, and operational burden	Planned, unplanned, automated resiliency test; predictive autoscaling	Custom metrics, teams configure alerts based on custom events	Infrastructure as code	Continuous delivery of all infrastructure components	Full self-service with graphical UI and APIs
Level 4 Advanced							
Level 3 Average							
Level 2 Basic							
Level 1 Beginner							
Level 0 Not started	Periodic patch rounds of OS packages	Order new hardware when more capacity requested; hardware is project specific	Backup/restore procedures validated periodically	Logging available via Ops; Basic monitoring for platform parts	Standardized procedures; basic scripts	Standardized procedures; people trained to execute	Standardized request forms picked up whenever Ops get around to it

Example Leading Indicators for Data Center Automation

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Consultas, Recomendaciones, Sugerencias.

DevOps: la perspectiva de operaciones

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