



HALO ITSM · CMDB & SERVICE DESIGN

Service Automation Framework

How to achieve efficient service delivery through enterprise CMDB architecture and a comprehensive Service Design process.

IT Managers

Service Owners

CMDB Managers

Enterprise Architects

PUBLISHED BY

Allied ESM Ltd

DATE

June 2026

CLASSIFICATION

Public

VERSION

1.0



SERVICE AUTOMATION FRAMEWORK

An expensive ticketing system is not a source of pride.

Around 70% of organisations deploy an ITSM platform only to later question the minimal automation and accountability it delivers. The fix is straightforward: invest upfront in defining your services, applications, and their ecosystems inside the CMDB — and establish clear ownership for each one.

The Halo Service Automation Framework (SAF) is built into HaloITSM. It provides the standardised foundation that turns a ticketing system into a genuine automation engine — driving assignment, escalation, approval, and reporting across every ITSM process.

COMPONENT 1

Service Data Model

A predefined CMDB taxonomy centred on services — five layers from Business Services down to Infrastructure CI's.

COMPONENT 2

Target Operating Model

Ownership and accountability for each service — who supports it, who manages it, who approves changes to it.

COMPONENT 3

Automated Procedures

Assignment, escalation, notification, approval, and review — all driven by the SDM and TOM, not manual rules.

70%

of organisations with ITSM tools gain minimal automation value from them

5

CMDB layers in the SAF Service Data Model — from Business Service to Infrastructure

1x

Define a service correctly once and automation follows across every ITSM process

The SAF framework is available within HaloITSM, but realising its value takes time and intent. Designing the right service taxonomy, mapping ownership, and building out the TOM requires upfront investment — not every project will have the budget for it. Where the scope allows, Allied ESM can work with you to design and configure the SDM and TOM as part of a Halo engagement.

SDM — THE FIVE LAYERS

Services sit at the centre of IT. Everything else connects to them.

The SAF Service Data Model defines five layers of the CMDB, each with a precise scope. Tickets, automation rules, and reporting all flow through this hierarchy. The key principle: define once at the service level and let Halo propagate ownership and automation downward — only exceptions need managing at lower levels.

BUSINESS SERVICE	Business Service Delivers value to end users and aligns with recognised business capabilities (e.g. Field Sales, Finance Reporting, Email, Recruiting). Defined by Enterprise Architects and Service Owners. Tickets are rarely raised directly against this layer — it exists to show business impact of IT issues.
IT / TECHNICAL SERVICE	IT Service (Technical Service) The base level for process automation. Three types: Application-aligned (e.g. CRM, ERP), Infrastructure-aligned (e.g. Linux Hosting, Network), and Management (e.g. Change Management, HQ Service Desk). Owns and manages applications and infrastructure below it.
BUSINESS APPLICATION	Business Application Configured software delivering specific business or IT capabilities — deployed in the client's or a third-party datacentre. Includes both off-the-shelf products and internally developed systems. Must have at least one owning IT Service and at least one Business Application Instance.
BUSINESS APP INSTANCE	Business Application Instance Physical deployments of a Business Application — by environment (Production, Dev, UAT), location (Global, Regional, Country), or business line. Every Business Application must have at least one Production instance. Directly related to Infrastructure CI's.
INFRASTRUCTURE CI'S	Infrastructure CI's Tangible and abstract components of the IT estate: servers, databases, storage, switches, firewalls, clusters, and more. All Infrastructure CI's must be mapped to an owning IT Service. Focus the CMDB on elements driving tangible business outcomes to avoid overload.

Define ownership and accountability at the IT Service level. Halo propagates this downward automatically — Business Applications, Instances, and Infrastructure CI's inherit the TOM from their owning service. Only exceptions need to be managed at lower levels.

GOLDEN RULES & SERVICE CATALOGUE SCOPE

Only model what is necessary. Focus on what you can maintain.

A service model that no one maintains is worse than no model at all. These rules keep the CMDB usable and automation-ready.

Understand the service ecosystem before modelling anything

Answer three questions first: Who provides and supports the service? Who owns and manages it? Who requests it? The answers determine which layer a CI belongs to, what TOM data it needs, and what relationships to map. Modelling without these answers creates data that cannot drive automation.

Define clear ownership boundaries

Every CI must have an owning IT Service. Every IT Service must have accountable and operational responsibilities recorded in the TOM. Where responsibility begins and ends must be explicit — Halo uses this to route tickets, fire escalations, and manage approvals. Ambiguous ownership means automation fails silently.

Keep the model usable in ITSM processes

If a service or application cannot be linked to a ticket, an owner, or an automation rule, question whether it belongs in the model at all. Focus the CMDB on elements driving tangible business outcomes. An overpopulated CMDB with stale data is harder to maintain than a lean, accurate one.

When not to include something in the service catalogue

A service or application should be excluded if any of the following apply.

REASON TO EXCLUDE	DETAIL
Already covered	The service duplicates an existing catalogue entry and provides no additional value over what is already modelled.
No ITSM support	The service is not managed through ITSM processes, or has no assigned owner or support team. Without a TOM there is nothing to automate.
Security or compliance risk	The service is based on outdated or insecure technology, or does not comply with security or regulatory requirements.
Project-specific or temporary	The service exists only for a specific project with no long-term usage perspective. Model services that will persist and evolve.

The service catalogue reflects the Service Data Model in the CMDB and is the foundation for IT operations. The request catalogue is a separate, end-user-facing view — it shows what users can order and report against. These two catalogues are distinct and serve different purposes in Halo.

TOM — OWNERSHIP DRIVES AUTOMATION

The TOM is your blueprint for assignment, escalation, and approval.

The Target Operating Model (TOM) records who is accountable and operationally responsible for each service. Every IT Service in the CMDB carries a TOM. Halo uses this data to automate ticket routing, escalation paths, change approvals, and notifications — without manual configuration per ticket type.

Accountable ownership

Each IT Service has a defined owner who is ultimately accountable for the service — its availability, quality, and data representation in the CMDB. The service owner validates TOM coverage and triggers governance reviews. This is typically a Service Owner or Product Owner.

Operational responsibility

The TOM also records operational roles: the L1 support team, L2 escalation team, L3 resolver group, change approver, and communications contact. These roles map directly to Halo assignment rules, escalation chains, and notification templates — defined once, applied everywhere.

Federated data ownership

Configuration managers who understand a specific service are responsible for maintaining its data in the CMDB. This federated model distributes the maintenance burden across the organisation rather than concentrating it in a single team.

Certified governance

A data certification process allows service owners to validate the coverage and quality of their data ecosystem. This governance framework ensures the TOM stays current — preventing the drift that turns accurate automation into stale rules over time.

Halo's four ticket routing rules

When a ticket is created or its CI changes, Halo evaluates routing in this sequence.

- 1 Dedicated routing on the ticket or request form takes priority**
 If the ticket type or request catalogue item has routing explicitly defined, that routing is used as-is. No CMDB lookup is needed.
- 2 Business Application Instance with no TOM inherits from its owning Business Application**
 If the primary CI is a Business Application Instance and no TOM is maintained at that level, Halo uses the TOM of the parent Business Application.
- 3 All other CIs without a TOM inherit from their owning IT Service**
 For Infrastructure CI's, Business Applications, and other classes without a dedicated TOM, Halo looks to the owning IT Service. This is why every CI must have an owning service.
- 4 Default: route to the Regional Service Desk at L1**
 Where no specific routing is found, Halo auto-populates routing to the Regional Service Desk for L1 support. This ensures no ticket is left unassigned.

PURE-PLAY HALO PARTNER

Allied ESM is 100% focused on Halo.

We are one of a small number of pure-play Halo ITSM partners globally. Every consultant, every project, every support call is built exclusively around Halo — no competing platforms, no divided loyalties.

Allied ESM configures the Service Automation Framework — SDM, TOM, and routing rules — as part of every Halo implementation. We bring the methodology, the templates, and the Halo expertise to get it right from day one.

WHAT ALLIED ESM DELIVERS

- Implementation — fixed-price plans from 5 weeks (Micro) to 17 weeks (Complex)
- SAF configuration — SDM design, TOM setup, and routing rule implementation
- CMDB architecture — service taxonomy, CI class design, relationship mapping
- Change and adoption — embedding SAF governance across your organisation
- Managed services — ongoing expert support with a named dedicated team
- ITSM staffing — UK-based Halo-certified consultants for your team

WEBSITE

alliedesm.com

GET IN TOUCH

info@alliedesm.com

HALO IMPLEMENTATION

alliedesm.com/services

ALL INTEGRATIONS

alliedesm.com/halo