Integration Agility Assessment (IAA)

The world is changing faster than ever. Are your systems keeping up?

Systems degrade and fail, are outcompeted, and regulated. Unless your systems can adapt to change, they become obsolete. Your systems can be designed to anticipate and support changes of all kinds, from unexpected failures to planned upgrades, and react to them appropriately and automatically. New functionalities can be added on to current systems when needed, instead of spending large resources on a completely new system to keep up.

By applying our Integration Agility Assessment (IAA), you get a status report on your current level of integration and what the options are going forward to quickly, and over time, create the best value. This could, for instance, be increasing the automation of integrations.

Sinetiq IAA charts a path to mature integrations

We will sit down with a handful of your experts, consider your systems from six perspectives, and produce a report and recommendations.

You can then chart your path, on your terms, to enable systems to share services and data in a system-of-systems architecture.

The six perspectives

The IAA centers around six perspectives relevant to all system designs.

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Composability

The ease at which communication strategies can be applied and changed. Your communication strategy determines what subsystems are to communicate with what other subsystems, or, in other words, what services are to be provided by what subsystems and what other subsystems ought to consume them.

Observability

The ease at which monitoring strategies can be applied and changed. Your monitoring strategy determines how information about what your system is doing is made available and distributed within your system. Such information is commonly referred to as monitoring data, and includes logs, metrics, and message traces.

Elasticity

The ease at which provisioning strategies can be applied and changed. Your provisioning strategy decides which abilities devices have and orders software components what to do. It also determines how and when software components are received, installed, updated, and removed by those devices. Provisioning is essential in adding a subsystem to a more extensive system.

Resilience

The ease at which contingency strategies can be applied and changed. Your contingency strategy decides how your system reacts to certain contingencies, such as accidents, power outages, component failures, or attacks. Appropriate reactions may include ordered shutdowns, changed task priorities, starting backup subsystems, raising alarms, etc.

Inspectability

The ease at which inspection strategies can be applied and changed. Your inspection strategy dictates how information is made available about your system. Such information, often called metadata, includes what kinds of subsystems it consists of, what software and other components the subsystems have, whether any components are affected by known security vulnerabilities, what performance limitations or reliability issues affect what subsystem components, and so on.

Security

The ease at which security strategies can be applied and changed. Your security strategy dictates how your system works proactively to protect itself from certain contingencies, often related to malicious third parties that want to steal information or tamper with your system. A security strategy includes several applied security measures, such as message digests, certificate exchanges, or access policies.

Each of our perspectives is concerned with a strategy. We consider such a strategy to exist no matter if it is executed manually or automatically. Not having a strategy, such as not employing any security measures, is also considered a form of strategy.

Report and recommendations

Together with you, we consider each of the six perspectives and assign an adoption level for them. Levels are awarded based on what the system is capable of, irrespective of how many subsystems or interactions qualify for the level. If the various parts of your system vary greatly in what levels they qualify for, we may decide to split up the system during the assessment and consider the parts in isolation.

The deliveries

1. a summary of the state of the system,
2. the level of each perspective with motivations behind it being awarded,
3. descriptions of what can be gained by increasing the levels of the respective perspective, as well as
4. a radar chart with the levels and an integration agility score, which is the average of all the levels.
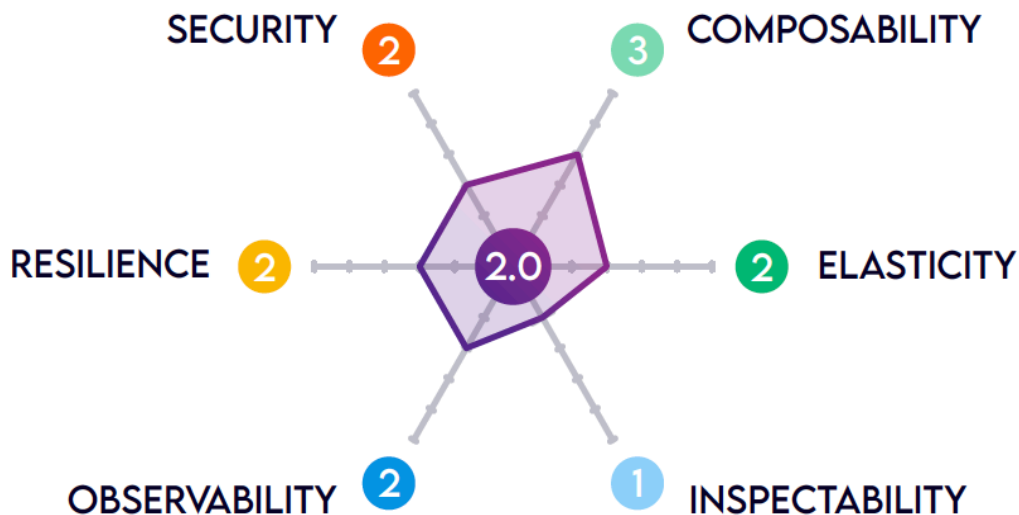
An example of a radar chart

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NEXT STEP

Based on the report, your goals, and considerations, Sinetiq can help you plan the next step to enable systems sharing service and data, and set a long-term path to a system-of-systems architecture, where better decisions are made faster.

Please contact us at info@sinetiq.se or +46 70 524 6583.