

## Delivering commercial advantage through R

It's no wonder R is one of the most popular analytic languages in the world today, based on its flexibility, capability and commercial advantage for an ever-expanding range of industries. Driven by a global community of innovative coders and members of the R community, the power of R arises due to the volume and limitless scope of additional packages made available via several public repositories.

“ Provides a standardised analytic environment for global teams ”

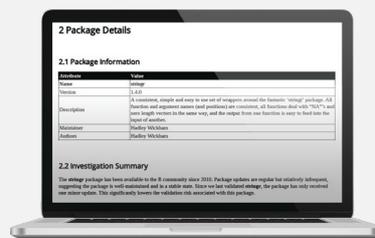
## Exposing the challenges of open source

There's just one problem. When you welcome the wealth of their cumulative expertise into your organisation, an inherent level of risk is introduced. Minimal quality checks are enforced on packages submitted to any of these repositories, and less than 30% of packages on CRAN have a visible formal test framework. Package quality can also vary considerably meaning that without careful control, businesses expose themselves to increased risk, from efficiency-draining bugs to malicious attacks.

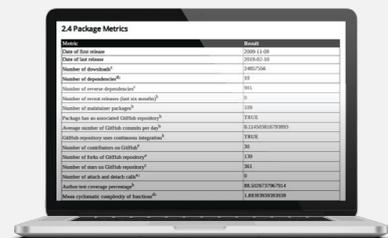
This may lead to a reluctance of trust in use of R as Data Practitioners are unable to satisfy their IT and Compliance teams; causing unnecessary time and resources being dedicated to monitoring or approving R packages.



The assessment of the R package follows a fully-audited, quality controlled process to determine whether a package is able to be validated



The stringent validation process followed for each package is fully documented and provides assurance that the ValidR delivery is both robust and stable



Metrics are gathered during the validation process to assess each package's maturity and quality

## Introducing ValidR Enterprise

ValidR Enterprise provides a validated, production-ready version of the client's environment. Effectively tested to offer stringent controls, this enterprise version, has been developed to meet the demands of IT and quality teams and provides the added reassurance to support regulatory compliance. 50 core packages and 400+ validated packages from CRAN, GitHub and Bioconductor are provided to mitigate risk.

## What can ValidR Enterprise bring to your organisation?

Mango's heritage and expertise in R software and validation, means we are uniquely placed to assess the quality, risk of R packages in accordance to ISO 9001 quality requirements, R Foundation for Statistical Computing guidance on regulatory compliance and validation issues.

## ValidR Enterprise adds an additional layer to the validation of:

- Over 400 validated packages to choose from allowing tailoring to specific team/industry needs An effective, tested environment that meets the demands of IT and quality teams
- Documented evidence which provides a high degree of assurance and consistency of process and reduces risks associated with using open-source software within your organisation
- Meets regulatory compliance requirements across a range of sectors
- Provides a standardised analytic environment for global teams—ensuring R can be made part of standard IT rollouts and reducing the burden of providing ad hoc environments to users

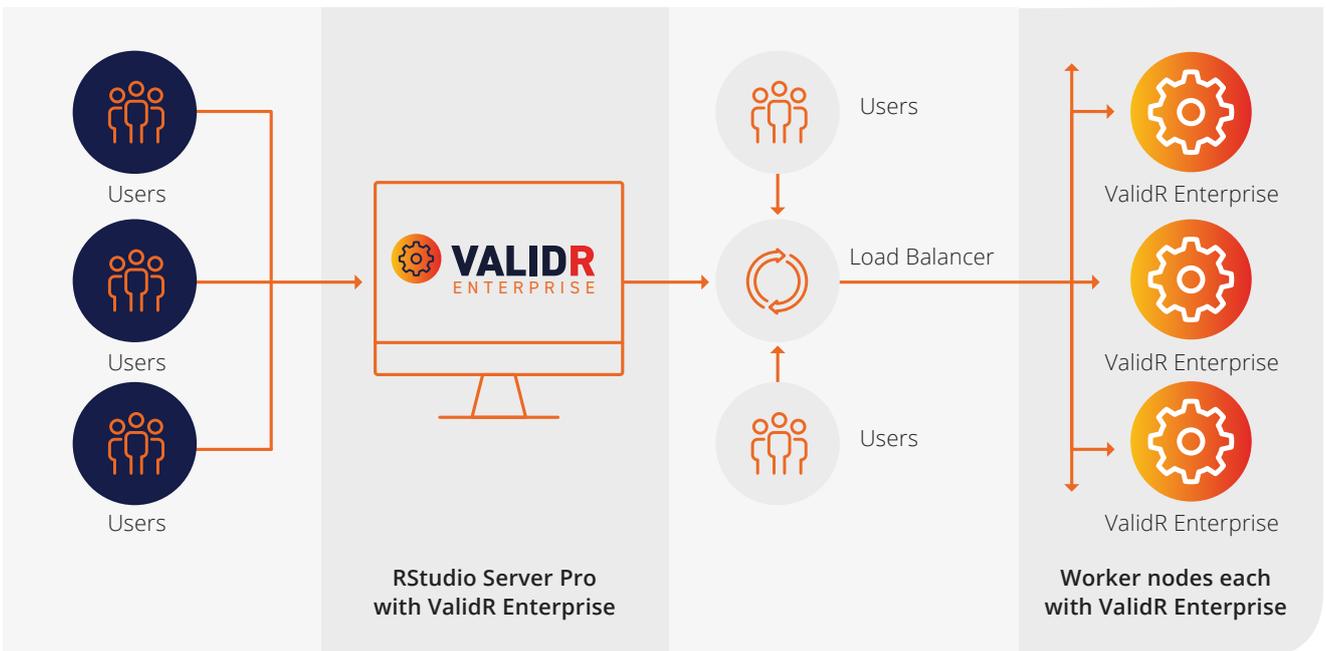
ValidR Enterprise provides teams with a comprehensive range of functionality and capability in accordance to their challenges:

 <b>For data science professionals</b>	 <b>For Quality, legal and InfoSec teams</b>	 <b>For IT and Ops teams</b>
<ul style="list-style-type: none"> <li>• Accessibility to a robust set of packages</li> <li>• Provides additional certainty and reproducibility of results across the team</li> </ul>	<ul style="list-style-type: none"> <li>• Confidence of best practice adoption within the business</li> <li>• Documented additional assurance and standards from a validated environment</li> </ul>	<ul style="list-style-type: none"> <li>• Save time and resources mitigating the risks of adopting and managing open-source software</li> <li>• Ensures standardisation and consistency across deployments and systems</li> </ul>

### ValidR Enterprise Specification

Validation Level	Client environment plus over 400 available R packages
Package Sources	CRAN, GitHub, Bioconductor
Supported Operating Systems	RedHat/CentOS 7 and client request
Package validation reports	✓
IQ/PQ/OQ qualification reports	✓
Validated and tested environment	✓

### How ValidR Enterprise complements your existing IT systems



### Delivery

ValidR Enterprise is delivered as a single package with client environment IQ, OQ and PQ test reports as part of the installation. This provides a repeatable analytical environment, ensuring a high degree of quality, ensuring consistency of use, productivity and providing dependable and results across any organisation.

For more information please contact [info@mango-solutions.com](mailto:info@mango-solutions.com) or visit [www.mango-solutions.com](http://www.mango-solutions.com)

