



### Business challenge

With more companies and software developers looking to harness the power of IBM i, how could Kregeltech democratize and accelerate access to the platform, making cloud hosting simple and secure?

### Transformation

The IBM i operating system is renowned for its integration, security, and reliability, making it a core platform for many enterprises. To remove barriers to entry for smaller companies and developers from other platforms, Kregeltech created Litmis Spaces—a cloud-based platform-as-a-service offering that enables fast, affordable access to IBM i.

## Business benefits

### Simplifies

acquisition of servers running IBM i through monthly leasing

### Reduces

cost of access to computing resources, helping businesses maintain a lower TCO

### Empowers

a new generation of programmers with a flexible environment for innovation

# Kregeltech

## Accelerates and cuts the cost of hosting with IBM i in the cloud

Kregeltech is an IBM business partner and independent software vendor from Mankato, Minnesota. Kregeltech solutions packages include RPG toolkits for processing JSON & XML web services, cloud hosting, credit card processing toolkits and UPS/FedEx shipping toolkits. Each of these packages lets RPG developers maximize their investment in IBM i. With an install base spanning 20 countries and several Fortune 500 companies, the Kregeltech infrastructure meets high availability demands while maintaining the Midwest work ethic instilled at the company's core.

*“We give users complete freedom to try out new ideas on IBM i; if things don't go to plan, there's no risk of disruption to core business systems.”*

—Aaron Bartell, Director of IBM i Innovation, Kregeltech

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## Filling a gap in the market

Attracted by the ability to reduce costs and access higher levels of performance and scalability on demand, many businesses are turning to service-based models of computing. [Krengeltech](#), an independent software vendor based in Minnesota, saw that there was a gap in the market. Aaron Bartell, Director of IBM i Innovation at Krengeltech, explains: “IBM i on Power Systems is typically used to run mission-critical systems, so the platform is usually managed in quite a conservative way. We could see that many small and midsized companies were often behind the current OS level, specifically because it was difficult for them to test the compatibility of their software stack without investing in new hardware.”

He adds: “In more general terms, there is a natural fear of making changes on a server that runs the core business applications—no-one wants to be responsible for breaking a key system. However, this means you cannot use the ‘fail faster’ approach embodied in the latest software development practices. We felt that the IBM i community was missing out on the ability to ‘dream in color’: to move fast, break things, and learn from their mistakes.”

At the same time, Bartell recognized that a new generation of coders lacked the opportunity to gain experience on IBM i—potentially putting them at a disadvantage in the employment market. Speaking at a conference for recent high school graduates and college students, he sold the crowd on the benefits of IBM i for open source development using tools such as Ruby on Rails.

“The attendees were excited to hear about the built-in database and security on IBM i, and they were keen to try it out,” he recalls. “So that got us thinking: how can we enable this completely new group of people to access the platform in a very flexible and [low-cost](#) way?”

## Building a space for competition

To democratize access to IBM i, Krengeltech worked with IBM to build a set of single-tenant and multi-tenant cloud services using logical partitions on an IBM Power® System server.

“We built two different IBM i cloud service offerings to address the different needs of our varied customer base and the broader community of developers: Litmis Spaces Single Tenant and Litmis Spaces Multi Tenant,” Bartell says. “The Single Tenant offering is a machine dedicated entirely to a single customer.

They have full QSECOFR access, including the ability to IPL (reboot) the machine. The Multi Tenant is a shared machine that can be used for commercial or learning purposes, but gives the user significantly less control over the machine.”

Anyone can sign up for a free Multi Tenant account on [Litmis Spaces](#), and get started on a personal or company project. As needs grow, they can move to a single-tenant offering where users pay a flexible monthly fee based on the resources needed. Equally, existing corporate users of IBM i are signing up to create hybrid clouds spanning their on-premises infrastructure and dedicated virtual resources on Litmis Spaces, including production workloads.

Litmis Learn, an educational branch of Kregeltech, offers programmers specialized tutorials to help develop their skills through articles and labs. The Litmis Learn materials can be consumed on the Multi Tenant service at no cost. For businesses that want more in-depth training, Kregeltech developed its [Litmis Services](#) offering. This offering helps companies get up to speed with using open source technology on IBM i either on the Litmis Spaces servers or on a business's on-premises server. The Litmis Services engagements have included custom training for development staff to accomplish real-world applications using open source languages like Node.js, Ruby, and Python.

“IBM offered tremendous support and assistance throughout the whole project,” says Bartell. “We worked together to compile Chroot for i so that we could keep all user

environments securely isolated in the multi-tenant environment, and we also collaborated on creating new open source repositories for i. All of those technologies were instrumental in us bringing these offerings to market.”

## Powering innovation

With its new IBM i cloud offerings, Kregeltech is giving students, developers and companies rapid, easy and efficient access to a feature-rich IBM i development platform starting from zero cost. Hundreds of users are actively building software in this multi-tenant landscape using open source tools running natively on i. When users decide to go into production, they can simply use a credit card to set up a dedicated single-tenant environment by selecting the amount of CPU, memory and disk they need.

Bartell explains: “With Litmis Learn and Litmis Spaces we are bringing IBM i resources to more users more efficiently—we can get new customers up and running very quickly. For users who are new to i, it's a great opportunity to experience first-hand the key benefits of the system: tight security, exceptional reliability and a database that is completely integrated with the OS. And for companies already running i on-premises, Litmis Spaces Single Tenant is a great way to try out new things or test new releases in a zero-risk, flexible and cost-effective virtual landscape.”

For independent developers, and small-to-mid-sized companies, Kregeltech's Litmis hosting solutions provide the freedom to push innovation to the next level.

***“We're also helping our existing customers be even more competitive and maximize the return from their ongoing investment in IBM i and Power Systems technology.”***

—Aaron Bartell, Director of IBM i Innovation, Kregeltech

“With our Multi Tenant IBM i cloud environment, we've really created a sandbox for developers,” says Bartell. “We give users complete freedom to try out new ideas on IBM i; if things don't go to plan, there's no risk of disruption to core business systems.

“We have already seen users benefit from having this capability on hand. For instance, Litmis Spaces helped an independent software vendor to test the compatibility of its application

on multiple different releases and versions of IBM i - without having to make a permanent investment in a Power Systems server.”

Kregeltech helped another customer develop a solution to support inventory tracking, building an Android barcode scanner application that uses Apache Cordova and Node.js on IBM i to connect directly to back-end systems (also running on IBM i). The solution boosts the productivity of the inventory tracking team by ensuring seamless communication between the inventory systems and the pistol scanners used in the warehouse. This has cut inventory management times in half.

“Another use case for Litmis Spaces is for companies that are nervous about opening up their i to the web,” says Bartell. “We can show them how they can put a second IBM i in the DMZ and have it connected to their production systems through a trusted open port. They can then pass SQL queries from the web front-end over this very secure encrypted connection, and get the results back from the core on-premises systems. Having the opportunity to get hands-on with this kind of approach is a great way to learn and to gain reassurance about the security.”

Kregeltech has seen an increasing number of companies move their production from on-premises servers to run entirely on a dedicated IBM i instance in the cloud. Another common use for a hybrid cloud is creating a data backup and recovery environment on Litmis Spaces.

Bartell concludes: “With our versatile IBM i cloud solutions, we are meeting the growing demand for flexibility in the IBM i community, as well as bringing more new people into contact with a platform that is legendary for its security, reliability and integration. We’re also helping our existing customers be even more competitive and maximize the return from their ongoing investment in IBM i and Power Systems technology.”

## Solution components

- IBM® i
- IBM Power Systems™

## Connect with us



## Take the next step

To learn more about IBM i, please contact your IBM representative or IBM Business Partner, or visit [ibm.com/systems/i](http://ibm.com/systems/i)

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