

# Yokogawa advances towards a single, global business model with a Cisco data center solution



<b>EXECUTIVE SUMMARY</b>
<b>CUSTOMER NAME</b> · Yokogawa Europe B.V
<b>LOCATION</b> · Amersfoort, Netherlands
<b>INDUSTRY</b> · Manufacturing
<b>COMPANY SIZE</b> · 19,000 employees worldwide
<b>BUSINESS CHALLENGE</b> · Re-engineer the organization into a single, global business · Increase cross-region and global collaboration
<b>NETWORK SOLUTION</b> · Cisco Data Center Network Architecture · Cisco® Wide Area Application Services (WAAS) solution
<b>BUSINESS VALUE</b> · Dramatically improves global collaborative working and knowledge sharing · Delivers a sub-one year return on investment · Delivers over €100,000 savings annually · €1000s and time saved by reducing employee travel · Reduces data duplication by 40 percent · IT resources from 34 locations concentrated into five data centers

Yokogawa, a multinational testing and automation equipment manufacturer, is using Cisco WAAS technology to increase global collaboration. In Europe, Cisco has collapsed IT resources of 34 branch offices into five data centers and achieved sub-one year ROI.

## Business Challenge

Yokogawa Electric Corporation was founded in 1915. It makes process automation, factory automation, test and measurement, medical research and aerospace equipment which is used mainly in the petrochemical and pharmaceutical industries. Yokogawa in Europe – Yokogawa Europe B.V – was established in 1982 and now has 1600 employees, manufacturing plants in the Netherlands and Germany and sales offices or agents in most European countries and in South Africa.

Yokogawa’s corporate business strategy is to become one global company and be the market leader in industrial automation and test and measurement equipment. Cooperation and collaboration between engineers, sales and services departments in the regional business of Yokogawa is essential to realizing these business targets. But to achieve that, Yokogawa needed to create an IT infrastructure able to share information and to make sure data within the organization is available and accessible around the globe.

Rob Tammeling, ICT manager for Yokogawa Europe and also part of the company’s global IT strategy committee, says, “Our global engineering groups required more

and more bandwidth for all kind of applications and data sharing. Files that we share around the world are often 100MB. But a constant upgrade in network bandwidth was very expensive and didn’t solve all the issues. Time to opening files, locking files and latency all remained a problem. Soon the various groups started to copy data and replicated this over multiple data servers. This potentially resulted in multiple copies, which individually were changed and no-one could find the latest version again.”

The challenge was to find a way to enable much more efficient and faster collaboration and information sharing across all of Yokogawa's global locations spanning Asia Pacific, Middle East, Europe and Africa and North and Central America.

## Network Solution

Yokogawa has chosen to deploy a Cisco application networking services solution based on the Cisco data center architecture. The company already had in place a global WAN (Wide Area Network) based upon Cisco foundation networking technologies, with LANs (Local Area Networks) at its regional and branch locations, most of which also use Cisco networking equipment.

Over Cisco WAN and LAN, Yokogawa has deployed Cisco Wide Area Application Services (WAAS) solution which is helping Yokogawa optimize performance across its WAN. Cisco WAAS provides a network-integrated, transparent application acceleration and WAN optimization solution. Through offering compliance with existing network configuration and features, Cisco WAAS allows IT organizations to deploy application acceleration and WAN optimization safely without compromising investment in value-added networking services.

At Yokogawa, Cisco WAAS is helping to improve high-performance access to applications, storage, and content across Yokogawa's WAN. High speed access is helping to reduce the cost of managing branch offices by consolidating infrastructure such as storage, servers, print and back up, leaving only low-cost and easy-to-manage network appliances at branch offices.

Yokogawa has deployed Cisco WAAS in the Europe and Africa region first because, unlike other regions, it had a disparate infrastructure with some 34 different locations each with its own, autonomous IT resources. As a result of the success deployment in the European and Africa region, Yokogawa is now planning to implement Cisco WAAS across other parts of the business in the Asia Pacific region, Middle East and the Americas.

Yokogawa had initially decided to use – and piloted - a competitive product to Cisco, but it found that the Cisco WAAS provided a much better fit with the company's global WAN. Tammeling says, "Besides the simple integration with the WAN, providing centralized maintenance via one single box with the Cisco WAAS was an easy-to-manage standard. Also, our feeling about Cisco, the global coverage, the support and its impressive development capability persuaded the Yokogawa Global IT Committee to choose the Cisco solution."

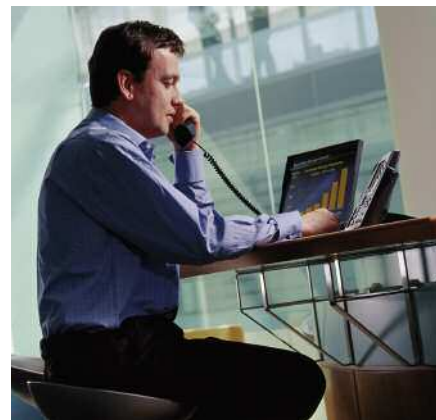
## Business Results

By deploying the Cisco Application Networking Services solution, Yokogawa has improved global collaboration, streamlined its business operations and made financial savings. The company estimates that data replication – caused by having to email several versions of documents around the world – has been cut by over 40 percent.

Yokogawa had expected it would need to significantly increase network bandwidth to accommodate increased traffic to its data centers, but instead it has saved in excess of €100,000 a year in Europe alone. For example, Romania has a 1Mbit connection and estimated they would need 8Mbits which

would have cost around €15,000 a year, but with the Cisco WAAS in place the need to increase bandwidth was removed. Yokogawa had planned similar bandwidth upgrades for a further ten locations in Europe.

However, the company expects to realize even more savings. Tammeling says, "The savings we've achieved through not increasing bandwidth are just the start. There will also be savings from reducing the amount of traveling that staff have to do especially between the Far East and Europe. We think several 1000s of Euros a month is being saved by reducing travel because of better collaboration facilitated by Cisco WAAS, and there is the additional benefit of less time wasted while staff are making long-haul business trips. A visit from the Netherlands to one of our Far East offices means at least three days spent just on traveling."



Just on reducing the data connection bandwidth the company anticipates it will provide a return in investment (ROI) in Europe in a year. But Yokogawa expected ROI to be even better because of greater efficiency, reducing the number of data servers, reducing duplication of data and reduced latency are all benefits which still have to be included in the ROI calculation.

## PRODUCT LIST

### Application Networking

- Cisco Wide Area Application Services (WAAS) Software
- Cisco Wide Area Application Engine (WAE) Appliances

With the implementation of the Cisco WAAS solution, Yokogawa has centralized its European ICT infrastructure, but still supports branch offices as if they still had data and applications sited locally. The Cisco solution has enabled Yokogawa to concertina the IT resources of 34 European locations into five data centers: two in

Germany and one in the Netherland, France and Italy managing up to 16Terabytes of data. Yokogawa is also looking at setting up another data center in South Africa.

The Cisco technology enables staff around the world to work on and look at the same documents. They can access data instantly, and it is that same version that others in the project team are working on. In addition, time is saved because staff can work on a project document at the same time since they don't have to wait for some else to complete their function before passing it on to others.

“One of the business benefits of the Cisco solution for Europe is the reduction in IT locations, but world wide it is the co-operation between different regions. Engineering is being done in India, Singapore, Tokyo and Europe. We are starting to see real productivity benefits on things like resolving minor questions and issues because it is now so much easier to communicate with an engineer half way around the world. They can access the same concurrent information and technical drawings that an engineer here in the Netherlands is working on, and fix the problem in an hour which is so much quicker and more efficient than people traveling or even trying to describe a technical issue over the phone.”

One of Yokogawa's business strategies is JIT (just in time) manufacturing which delivers products to customers when they need them, reducing the need and cost of carrying a lot of stock. “It is all about Cisco enabling us to centralize information,” says Tammeling. “So for example, when an order comes in from a customer in the Netherlands, it's processed and sent to Tokyo. Now there is no delay in transporting the information associated with a job - which often requires large technical files – from one location to another because the information is centralized. Anyone from any locations or department can access the information immediately and it is always up-to-date. It means orders can be processed and fulfilled much faster.”



Tammeling adds, “Because we are a world wide company, we are working on many projects in co-operation with other regions in the business, a good, quick and stable network infrastructure is central to the success of these projects. We need to rely completely on a good network infrastructure and if it is not there then we cannot do these global projects anymore. Cisco is the company that provides us with that stable environment, its products are good, stable and reliable and that's what we need.”

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**Rob Tammeling, ICT Manager, Yokogawa Europe B.V**

**Americas Headquarters**

Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
[www.cisco.com](http://www.cisco.com)  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 527-0883

**Asia Pacific Headquarters**

Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
[www.cisco.com](http://www.cisco.com)  
Tel: +65 6317 7777  
Fax: +65 6317 7799

**Europe Headquarters**

Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
[www-europe.cisco.com](http://www-europe.cisco.com)  
Tel: +31 0 800 020 0791  
Fax: +31 0 20 357 1100

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