

# iOra Cross Domain data Replication

## BENEFITS

### SMART DATA REPLICATION

iOra replication technology has been designed to reliably deliver data over the most challenging high latency, low bandwidth networks.

### COMPATIBILITY

iOra web virtualization technology means other non-Microsoft SharePoint based web and file based content can be replicated over challenging networks

### SCALABILITY

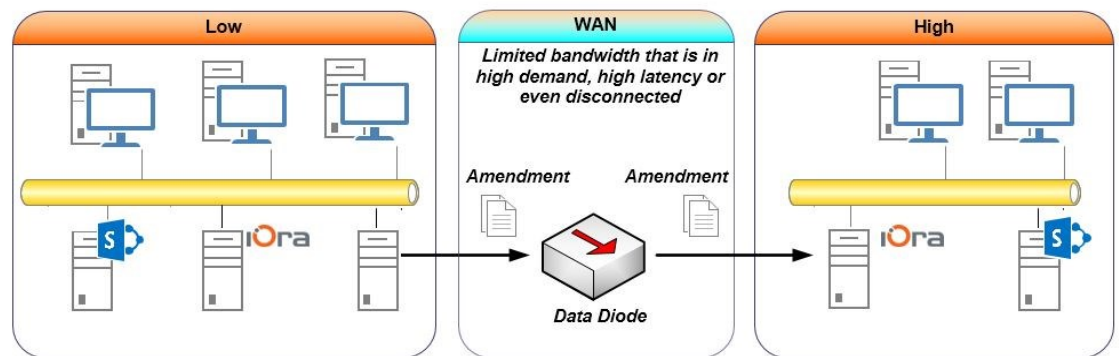
iOra supports tens of thousands of users and terabytes of replicated content.

### CONSISTENT DISTRIBUTED DATA COLLABORATION

Consistent enterprise-wide information management is enforced by ensuring that all users, irrespective of location, have access to the same information and data.

## Background

The replication of data has become established as a key requirement for enabling collaboration for users who are separated geographically. This is complicated in environments where the remote users are located to the network edge and communication is challenged by low and high latency networks. Collaboration is further complicated where domains at either end of the network are operating at different levels of security e.g. company vs. company. For classified or secret sensitive data, these instances the replication scheme must be able to be configured in a manner in which the security of data at each location is maintained and assured.



## Cross domain replication

The requirement for replicating data over a reliable network is most frequently requested by military users in these applications that are able to maintain a clear distinction between classified domains. It is a fundamental prerequisite to maintain the network. A data diode is installed as a gate between the two sites. The data diode is a network appliance that is certified to guarantee the passage of data in one direction. The diagram above shows the device between the two environments e.g. classified and the high environment e.g. secret.

The physical nature of unidirectional networks only allows data to pass from one side referred to as the low side of a network connection to another referred to as the high side and not the other way around. Hence, its other users on the high side network are that their data is kept confidential. While the access to data from the low side is unidirectional, it can be attractive if sensitive data is stored on a network. It requires connectivity to the internet. Traditionally, the data would be vulnerable to intrusions from the internet. However, in a unidirectional network separating a high side from sensitive data and a low side from internet connectivity, one can achieve the best of both worlds.

## iOra Geo-Replicator® operational modes:

### Unique iOra configuration

When the iOra Geo-Replicator software processes a particular piece of content for distribution, and manages it later, this is referred to as a publication. A publication consists of content that forms a complete set of information being kept up-to-date by the Geo-Replicator software.

When you modify the original content of a publication, you need also to update the content that you have previously distributed. You use the iOra software to generate files, known as amendments, that contain the changes to the original content. Amendment files are small because they contain only the specific bytes that have changed in the publication. They do not contain the whole content again. For content replicated between servers only this single file needs to be transferred from low to high using the Data Diode device as a network appliance. For replication to be successful all that is required is the simple passage of the file over the network, without the requirement for additional network communication. This is both highly efficient, given that the amendment file is compressed using the world leading iOra patented Epsilon compression technology, and also secure as the Data Diode is maintaining physical server network separation.

### MORE

#### INFORMATION

For more information on any of our products or services please visit our website

[www.iora.com](http://www.iora.com)

### SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance

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