## 1.0  OVERVIEW

As the global leader in advanced fax server solutions for IP networks, Sagemcom's field-proven and Cisco® compatible XMediusFAX™ leverages IP telephony and Unified Communications (UC) systems to enhance productivity, collaboration and ROI by integrating fax on the desktop. Deployed worldwide since 2002, XMediusFAX is the most mature T.38 Fax over IP (FoIP) software on the market. Sagemcom's continued collaboration with Cisco, a key technology partner, has enabled close alignment with Cisco's evolving support for branch office applications. Cisco's Unified Computing System™ Express (Cisco UCS Express) is a converged computing, virtualization, and networking platform that enables cloud  based services in the branch office. As a pure software solution, XMediusFAX is easily virtualized and ideal for integration with Cisco's SRE-V solution as part of the overall UCS Express platform. This new branch survivable capability enhances Sagemcom's overall offering with respect to fax survivability solutions[1].

## 2.0  XMEDIUSFAX & CISCO UCS EXPRESS

In its continued efforts to provide a branch office fax solution within newly emerging virtualization technologies, Sagemcom's XMediusFAX software based fax solutions (Release 6.0.0 and higher) have been shown to successfully interoperate with Cisco's UCS Express platform. UCS Express is a converged computing, virtualization, and networking platform which is ideally suited for hosting essential infrastructure services and mission critical business applications, such as fax, in the branch office.

The UCS Express is best suited for multisite organizations with a centralized HQ/IT Infrastructure that require hosting applications locally in the branch office for performance, survivability, or compliance reasons. It enables multiple virtual instances of Microsoft Windows Server to run on dedicated general-purpose service modules directly in the ISR G2 router. With Cisco's UCS Express, organizations with multiple branches can lower their total cost of ownership (TCO) and increase their business agility by leveraging their existing branch-office infrastructure.

The UCS Express platform is comprised of the following components:

- Cisco Services Ready Engine (SRE) x86 blade servers (SM-SRE-700-K9 & SM-SRE-900-K9) as the computing platform
- Cisco Services Ready Engine Virtualization (SRE-V) server virtualization platform powered by VMware vSphere Hypervisor
- Cisco Integrated Services Router Generation 2 (ISR G2) networking platform with Multigigabit Fabric (MGF) backplane switch
- Cisco Integrated Management Controller Express (IMC Express) blade management system

Figure 1 below illustrates the service modules which are supported for use within the ISR G2 (2900 & 3900 series), whereas Figure 2 provides a high level view of the major components that make up the UCS Express Platform, in which XMediusFAX can be implemented as a service on a virtual server hosted on the Cisco SRE-V branch-office infrastructure platform.
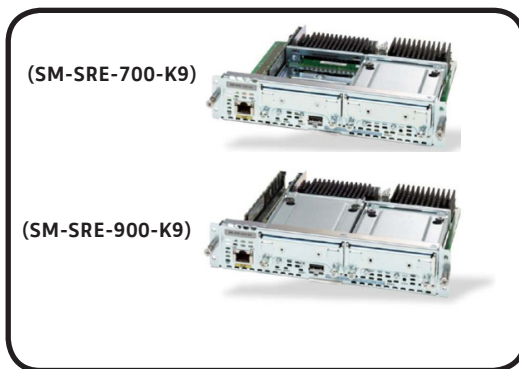


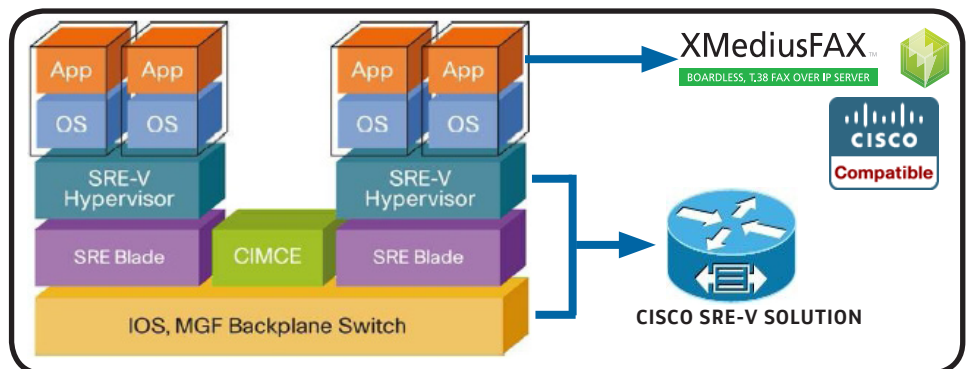**Figure 1: Supported ISR G2 Service Modules**



**Figure 2: XMediusFAX as a Component of the Cisco UCS Express Platform**

[1] **For additional information, please refer to Sagemcom's Application Guide entitled "XMediusFAX Fax Survivability Solutions"**
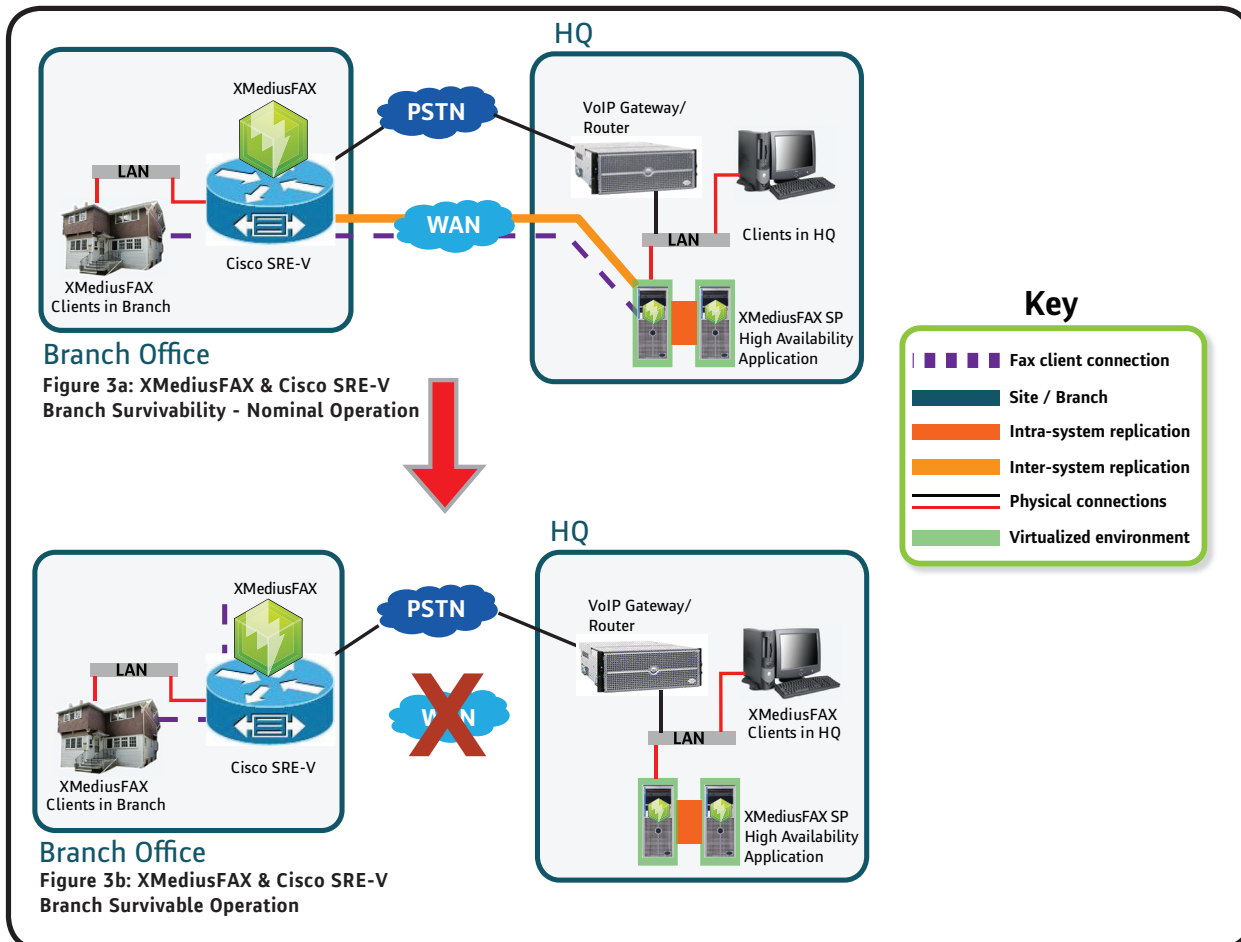
**SAGEMCOM**

## 3.0 BRANCH SURVIVABILITY WITH XMEDIUSFAX IN CISCO'S UCS EXPRESS PLATFORM

The interoperability of XMediusFAX with Cisco's UCS Express platform is yet another viable solution in the drive to overcoming branch office constraints. In the latter part of the last decade, Sagemcom developed the XMediusFAX AXP edition[2], the only fax solution to operate within Cisco's ISR/AXP open applications platform. By consolidating the Linux hosting environment within the Cisco ISR router and the XMediusFAX s/w on a unified platform, users benefited from a truly 21st century fax solution featuring increased security and survivability while lowering the TCO within the enterprise. However, with newer virtualization technologies becoming more and more popular, Sagemcom continues to align its product offerings to these ever changing business realities. In this regard, the interoperability of the various Windows® based editions of XMediusFAX (X, EE, SP) with Cisco's SRE-V branch office infrastructure enables a new and evolved branch survivability scenario for faxing.

With branch survivability, fax users at the branch can continue to send and receive faxes even if the system at the company's HQ is not responding due to a WAN connection problem. With a combined XMediusFAX/Cisco SRE-V solution, any company can continue to leverage its Cisco ISRs to ensure business continuity at the branch level, even when connection to the data center is lost. This is ideal for large enterprises with multiple branches who can't afford to lose their fax services at any location.

Figure 3a below illustrates a branch client utilizing the centralized XMediusFAX in nominal operation. In this configuration, XMediusFAX (X, EE, or SP) edition running Release 6.0.0 or greater with its host operating system is installed in a Cisco ISR G2 router on the branch side. By activating the Inter-System replication[3] functionality between the HQ system and the branch system, the configuration is made survivable. Under normal circumstances, the XMediusFAX - Cisco SRE-V solution effectively resides in a "passive" standby mode where IP traffic is transported over the WAN link to be processed by the central server at HQ.

Figure 3b further illustrates how, in the event of a WAN failure, the ISR intercepts requests automatically and re-directs branch clients to use the local XMediusFAX solution which terminates the fax locally and redirects the fax to its final destination via the PSTN. When the WAN is restored, the system auto-reverts to nominal operation. When peered with an SP edition server at the HQ, the XMediusFAX edition can benefit from deployment models ranging from disaster recovery (DR) to remote branch survivability ($B_rS$).



**Figure 3a: XMediusFAX & Cisco SRE-V Branch Survivability - Nominal Operation**

**Figure 3b: XMediusFAX & Cisco SRE-V Branch Survivable Operation**

Key:
- Fax client connection
- Site / Branch
- Intra-system replication
- Inter-system replication
- Physical connections
- Virtualized environment

[2] For additional information regarding the AXP edition, please refer to Sagemcom's Product Overview entitled "Integrate Fax Capability onto the AXP Platform within your Cisco ISR and Enhance Your UC Startegy"

[3] For additional information regarding replication, please refer to Sagemcom's Application Guide entitled "XMediusFAX Fax Survivability Solutions"

# Can **UC**

## what's missing?™

Do not overlook FAX as a strategic component
in your UC & converged IP solution.

## 4.0 BENEFITS

Table 1 highlights some of the key benefits derived from the implementation of the XMediusFAX and Cisco SRE-V solution.

| BUSINESS BENEFITS | DETAILS |
|---|---|
| Reduce ongoing costs related to fax machines | • Eliminate junk faxes<br>• Reduces overall printing, toner, and maintenance costs, as well as paper consumption<br>• Improves presence and increases user productivity by up to 90% |
| Reduce hardware footprint - A green initiative | • Eliminate single purpose server hardware<br>• Avoids unnecessary deployment of servers to preserve local fax numbers<br>• Fax operations become a virtualized service offering as part of a simplified branch office infrastructure<br>• Ensures remote site (branch) survivability for mission critical faxing<br>• Reduces energy consumption |
| Lower Total Cost of Ownership (TCO) | • Includes fax capability as part of the Cisco network<br>• Reduces server refresh requirements and costs<br>• Provides a software-only solution; no expensive fax boards or third party integration kits required<br>• Cost savings by up to 90% with rapid ROI (typical payback of 1 to 6 months) |
| Secure sensitive fax transactions | • Routes sensitive documents to designated recipients, including secured printers<br>• Provides an audit trail of fax transactions to facilitate compliance requirements (i.e., SOX, HIPAA, PCI) |
| Enhance ROI of UC Projects | • Eliminates analog fax overhead and routes faxes over UC infrastructure directly into employee inboxes. |

**Table 1: XMediusFAX - Cisco SRE-V Solution Benefits**

## 5.0 CONCLUSION

Sagemcom continues to drive forward with tight alignment with Cisco's "the network as a platform" architectural ideology. As the next phase of evolving branch survivable solutions, Sagemcom's XMediusFAX software-only Windows based fax editions (X, EE, and SP) work in harmony with Cisco's SRE-V branch office infrastructure. As such, XMediusFAX can be integrated as a point application into Cisco's UCS Express converged computing, virtualization and networking platform. Perfectly suited for virtualized environments, these editions of XMediusFAX can be deployed quickly on the SRE-V virtualized platform alongside other mission critical business applications.

For green-field applications where users are installing a new branch office infrastructure, the benefits are numerous as they shift into a new operational paradigm. Enterprises with an existing branch office infrastructure with existing infrastructure based on Cisco's ISR G2, can further leverage their investment by easily adding fax services at their branch(es) and create a branch survivable solution for their faxing operations.

For more information :
AMERICAS AND OCEANIA : Toll-free U.S./Canada: 1-888-766-1668 or Tel.: +1 514-787-2100 – Fax: +1 514-787-2111  xmediusfax.sales@sagemcom.com
EMEA AND ASIA : Tel.: +33 (0)1 57 61 10 00 – Fax: +33 (0)1 57 61 10 01  xmedius.sales.emea@sagemcom.com

Distributor/Reseller:

**Sagemcom Documents SAS**
250, Route de l'Empereur
92500 Rueil-Malmaison – France
Tel.: +33 (0)1 57 61 10 00
Fax: +33 (0)1 57 61 10 01
www.sagemcom.com

## SAGEMCOM